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Electrical Contracting

With Which Is Incorporated
The Electragist

June
1929

Every Point a Feature
Many Exclusive with (FA)



Panelboards

Frank Adam
ELECTRIC COMPANY
ST. LOUIS

OFFICES IN
THIRTY CITIES



No building-up or aligning to install Screwless Plates

Hubbell Metal Under-plate automatically brings the device flush with plaster. Then, snap on a Screwless cover-plate of Bakelite.

SINCE most walls are uneven the automatic aligning feature of Hubbell Screwless Plates almost invariably saves from 25 to 50% of installation time.

No building-up necessary when Screwless Plates are installed. The Hubbell Metal Under-Plate; to which the Screwless Cover-plate of Bakelite is snapped, automati-

cally brings switch or receptacle flush with the plaster line. Then, only a moment is required to snap the Screwless Plate fast—in perfect alignment.

Hubbell Screwless Plates of Bakelite can be furnished to match exactly any color, wood, marble or plaster finish. This service makes it possible to harmonize switch and outlet plates with every room. Prospective tenants especially appreciate this feature, as well as the perfectly insulated, "dead front" surface of Screwless Plates.

All of these advantages are fully explained in our A. I. A. Bulletin No. 31c-7. The coupon will bring a copy promptly.

HARVEY HUBBELL, Incorporated
BRIDGEPORT, CONNECTICUT, U.S.A.



HUBBELL *Screwless Plates*

Mail Coupon to our nearest office

Boston, Mass.
176 Federal St.

Atlanta, Georgia
118 Marietta St.
H. C. Biglin

New York City, N. Y.
122 East 42nd St.

Main Office:
Bridgeport, Conn.

Chicago, Illinois
318 W. Washington St.

Denver, Colo.
1109 Broadway
The Sales Service Co.

Philadelphia, Pa.
Fifth St.
Philadelphia Bourse
(Exhibition Dept.)

San Francisco, Cal.
390 Fourth St.
Garnett Young & Co.

Please send A. I. A. Bulletin No. 31c-7

Name _____

Address _____

City and State _____

EC-6-29

Electrical Contracting

With Which Is Incorporated The Electragist

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Editor

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Vol. 28

JUNE, 1929

No. 8

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RESALE PRICE NEWS

A number of readers have asked us what the average mark-up is in our suggested Resale Prices. There is no average. A number of different mark-ups are used depending upon the class of product. Some products move slowly, or need considerable handling or a great deal of stock room. They, therefore, take a high overhead. Others with a lower overhead have a smaller mark-up. Our aim is to make the price of each product carry a reasonable overhead and profit.

The Resale Price Service contains almost all of the items regularly used in wiring installations. If there are any items we have missed, we will be glad to include them, provided we have a sufficient number of requests to make it worth while.

This issue completes the first half year of the Resale Price Service. In that time there have been one or more changes in price in almost every classification, totalling in all between three and four thousand changes.

Attention is called to the advance in price in cutout boxes, particularly the larger sizes. We have omitted the 5-in. size because these were omitted from latest manufacturers' lists.

Wire prices appear to be more stable than they have been in months.

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WIRING SYSTEM CONCEIVABLE

WIRES



National Electric

National Metal Molding

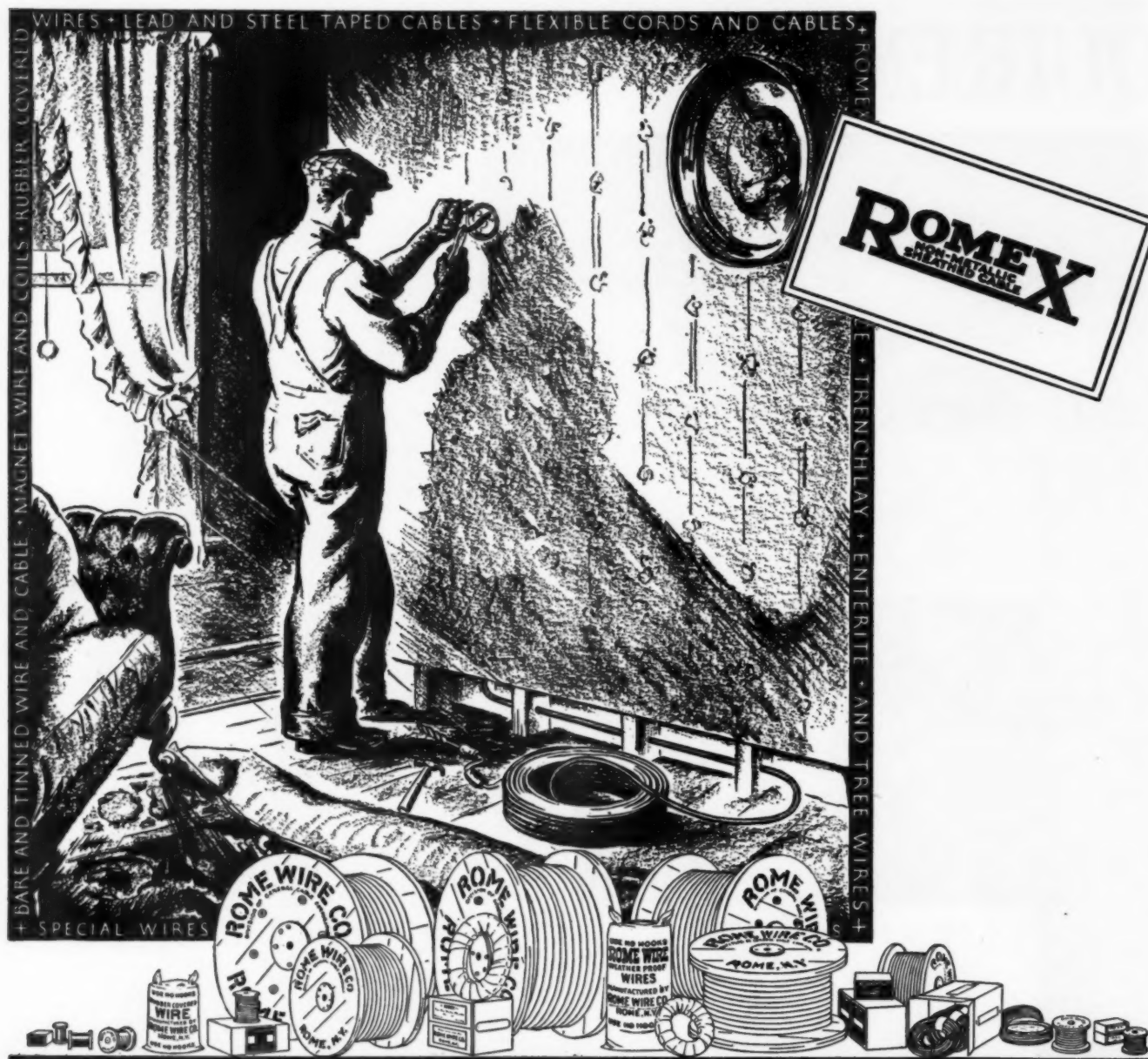
and FITTINGS FOR REQUIREMENT



and CABLES



Products Corporation
Division - Pittsburgh, Penna.



There's profit in rewiring jobs with RomeX

When a man decides that his home needs new wiring, he seeks the best possible job at lowest possible cost. That means—use RomeX! For RomeX will cost him less and yet gives the contractor a larger profit per job.

RomeX is lighter and easier to use. It can be more quickly installed—it is easier to fish through old walls. It needs

fewer fittings. *And all these advantages reduce labor costs.*

More jobs per month—with larger profits. That is one RomeX contribution to the Electrical trade. Are you taking advantage of this real opportunity to increase your business?...Details on RomeX—complete—are yours for the asking. Write for the latest RomeX booklet.

ROME WIRE COMPANY, Rome, New York
Division of General Cable Corporation

2907-R

ROME WIRE

The Official Journal

ELECTRICAL CONTRACTING is the official journal of the Association of Electragists, International. Its predecessor, The Electragist, was an association magazine, because it was owned by the Association of Electragists. Is this a distinction without a difference, or is there a real publishing fundamental involved?

An association owned magazine is completely under the influence of the owning body. The purpose of such a magazine primarily is to promote the ideas and ideals of that association and to give publicity to its activities. Any statement contained in such a magazine must necessarily be stamped as reflecting the thinking of the association. With changing administrations there can never be the assurance of stability of policy to an association owned magazine that there can be to one under private ownership.

Moreover, an association must necessarily consider the publication of a magazine of secondary importance to the regular affairs of the association itself. For that reason, the opportunity to grow is greatly restricted for an association owned paper.

THERE are, of course, many advantages enjoyed by an association owned magazine, virtually all of which are experienced by an official journal, but with none of the drawbacks.

The independently owned official

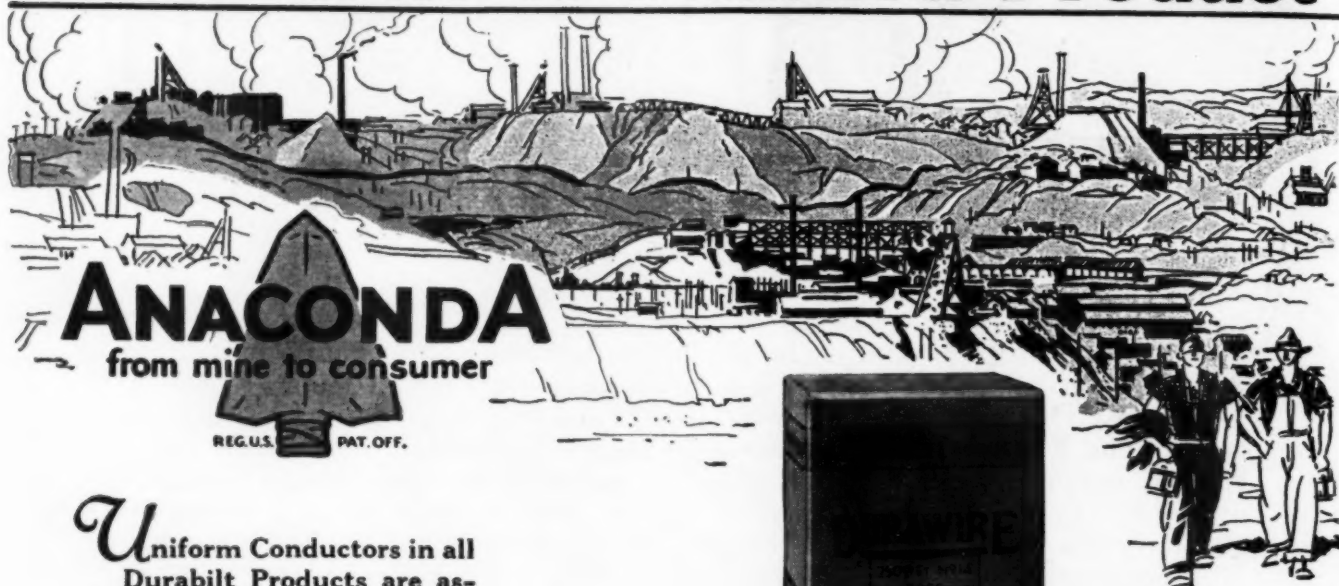
journal enjoys the confidence of the association. It can feel the pulse of the industry on certain topics without making it official. It can be independent in its thinking. It can criticize the association in a friendly, sympathetic way. It has all of the members as readers, but in addition has the stimulus to build its circulation to the very highest point—and it can do it without fear of the charge of propaganda.

THE independently owned magazine has no restrictions as to its field of editorial endeavor. It is not limited in its viewpoint by resolutions or association policy, or the fear that any pronouncement it might make will be construed as being an official statement.

ELECTRICAL CONTRACTING as the official journal of the A. E. I. is a stronger magazine than it would be otherwise. It is independent, yet fortified with the friendship of and close ties with two thousand of the best in the electrical contracting business.

Furthermore, ELECTRICAL CONTRACTING is proud to be the official journal of a national association such as the Association of Electragists. The association's officers must have had confidence in our ability to understand the contractor, and recognized our position as the outstanding paper in the field, in order for ELECTRICAL CONTRACTING to have merited the honor of being its official journal.

from Mine to Finished Product



ANACONDA

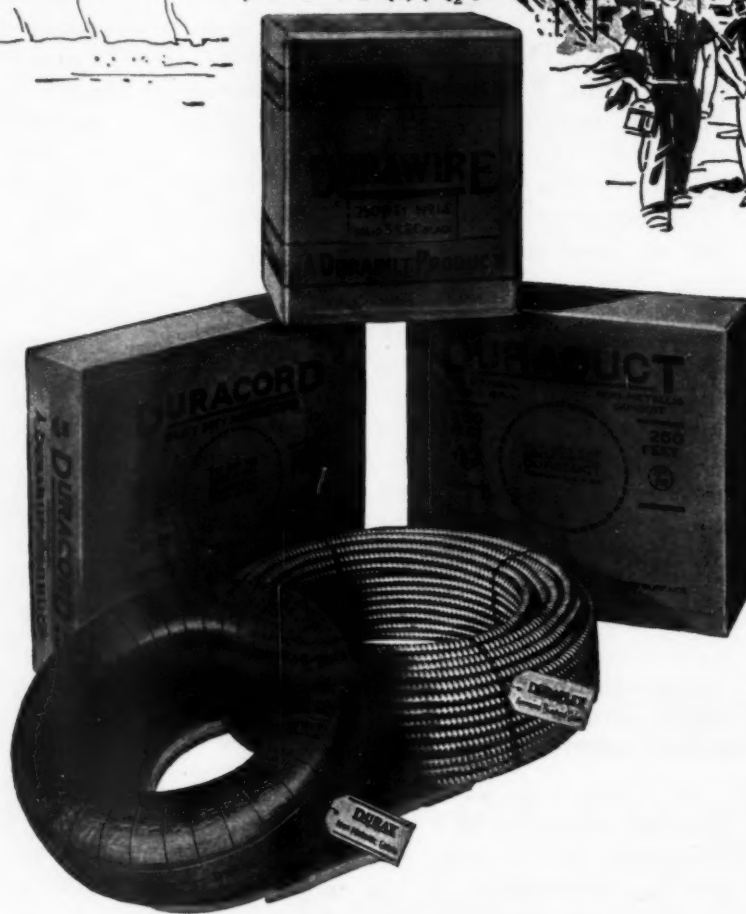
from mine to consumer

REG. U.S. PAT. OFF.

*U*niform Conductors in all Durabilt Products are assured by our control of every step in the manufacture, from our vast copper mines, to the finished wire.

These are the quality wiring materials which, for years, have helped Electrical Contractors everywhere, to do the best wiring jobs with the —

*Greatest Saving
of Time!*



DURABILT
REG. U.S. PAT. OFF.
PRODUCTS

*Speed up
wiring
jobs*

ANACONDA WIRE & CABLE COMPANY
PAWTUCKET, R. I.

Vol. 28
No. 8

Electrical Contracting

With Which Is Incorporated The Electragist

June
1929

"V ELL, Ch-ohn, you look like you vas varm," remarked Moe Unterbidder as John Wise pulled a chair up to the round table known as the Electrical Lunch Club.

"WARM?"

Exclaimed John Wise,

"why, feller I'm so hell-fire hot I could use my breath for a blow-torch. I don't dast drink ice water for fear it will come to a boil and scald my innards going down. Warm? Why, say—"

"What's-a-matter?" asked Henry Trimmer. "Did you forget to figure in the wire on the Ginsberg job?"

"Now how did you guess it was the Grand Department store job?" demanded John Wise.

"That's easy," replied Henry. "We're all figuring on it and the one who gets it will lose his shirt."

"Well, I won't be It, and the guy that gets it won't lose his shirt. That's what I'm hot about.

"You see," continued John Wise, "a building like this is quite a sizeable financial operation, and the banker's got a lot to say about it. When Ginsberg was ready, he asked for bids from every general contractor from here to Helvetia.

"Well, when I saw how things were going I went to Ginsberg's banker and I says to him, 'You are either going to bankrupt some of our local business men or you are going to let a quarter of a million of the bank's money be spent out of town—why?' Well he wanted to know what I meant, and when I explained Ginsberg's game he phoned Jake to come over to the bank and he gave him a swell razzing, and ended up by telling him the contracts had to go to local people and that the local contractors had got to be allowed a reasonable profit. This banker, you see, held the money-bag.

"But it cooked my goose. Jake was sore and told me as we went out that he'd kiss a pig before he gave me the electrical work."

"The moral of this story seems to be, 'Keep your mouth shut and figure close,'" says Trimmer.

"No such thing!" snorted John Wise. "Maybe I lost this job, but if I can't get it I want my competitor to get it at a price that pays a profit."

"But I esk," said Moe, "vat then the moral uff the story is?"



"The Moral of the Story,"

replied John Wise, "is this—

**IT PAYS TO TALK THINGS
OVER WITH THE BANKER**

Apprentice Education



The theory as taught in the classroom
and then—



Made to work with such materials
and equipment as would be found in
use on a job.

PAYS

By C. C. CADWALLADER

*Manager, Detroit Association of
Electragists*

Under the supervision of the Federal and State Boards of Vocational Training, the Detroit Electragists, Electrical Workers Union and Detroit Board of Education have been conducting a trade school for electrical apprentices, the union furnishing the instructors, the electragists the materials, and the school board the metering equipment and school rooms. Ninety-two have been graduated and all are working at the trade while thirty-six were dropped for non-attendance or inability to learn the trade. It has been a good investment, for the graduate journeymen are among the best workmen we have.

Illustrated
Theory



Nine School Points

- 1 The term of apprenticeship shall be four years.
- 2 An apprentice must be over eighteen years of age before he is allowed to enter.
- 3 Each apprentice must spend one full day of eight hours out of each two weeks.
- 4 Each apprentice is paid 10 per cent above his hourly rate by his employer, which amounts to one full day every two weeks.
- 5 Any time lost at school by the apprentice must be made up.
- 6 Any apprentice missing three days from school is dropped from the roll unless he has a legitimate excuse.
- 7 Each apprentice must pass an examination before he is classed as a journeyman.
- 8 There are two electrical instructors who have had practical as well as theoretical experience.
- 9 The course is divided into four divisions as follows:
Theory.
Mathematics.
Practical Electricity.
Drawing and Blue Print Reading.



Most of the apartments wired by Krech are equipped with intercommunicating telephone systems, electric refrigeration and ventilating fans on the roof.



PLANNED

Apartment House

WIRING

A layout containing nothing but electrical work is given to the wiremen on every job. In apartments where the men work on different floors, each man gets a copy and does not have to climb up and down to examine the plan. All necessary information, including changes, are noted on the layout.



What happens when mechanics do not have a layout but try to use the original plans for their wiring information—lost time and frequently guesswork.

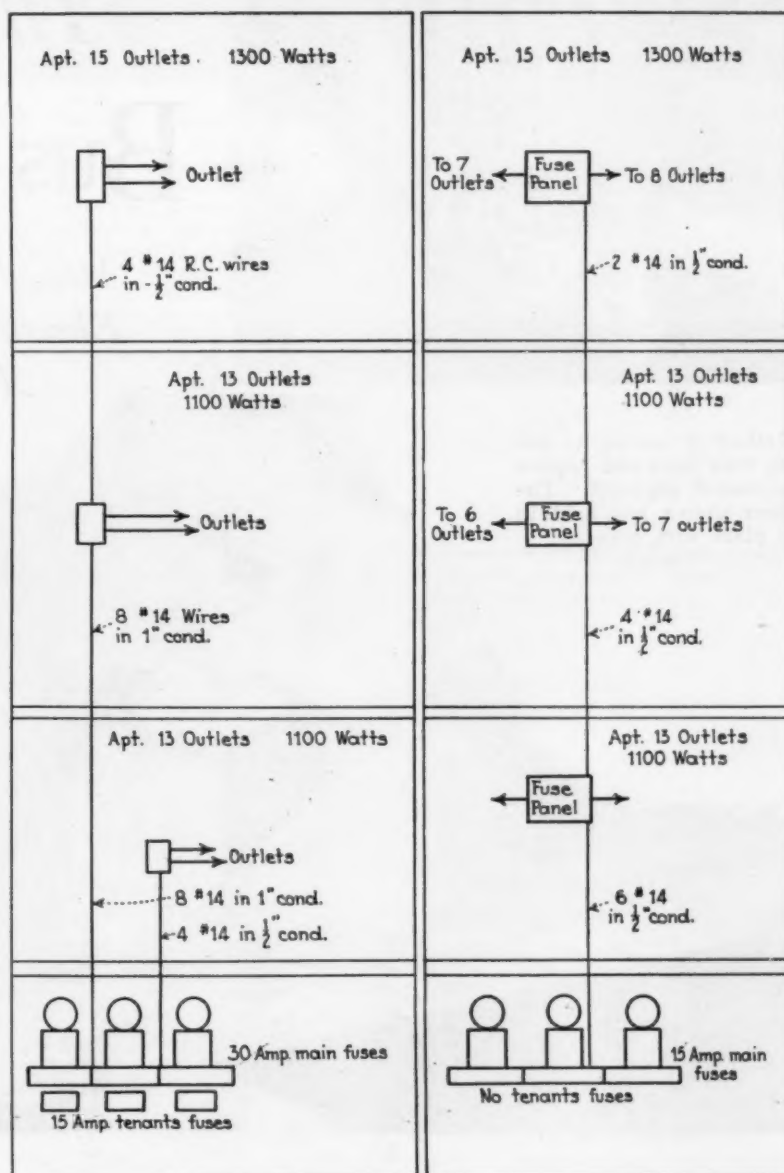
The Krech Electric Co., Milwaukee, Wis., while carrying on a general wiring business, specializes in apartment house contracts, taking on as many as ten at a time. The accompanying illustrations show some of the short cuts and methods which produce better work and add substantially to the profits. Every workman understands the system and knows exactly what next to do at all times.

Charles Krech (right) and Ed Steigerwald inspecting one of the six ventilating fans on the roof of a 24-apartment building.

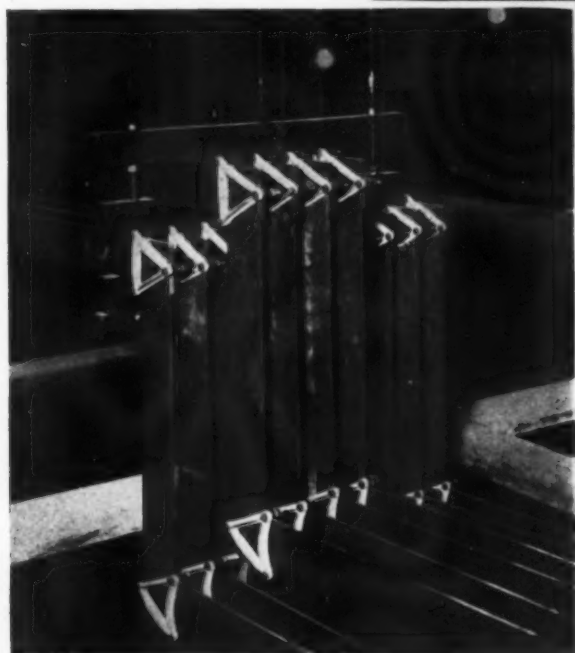
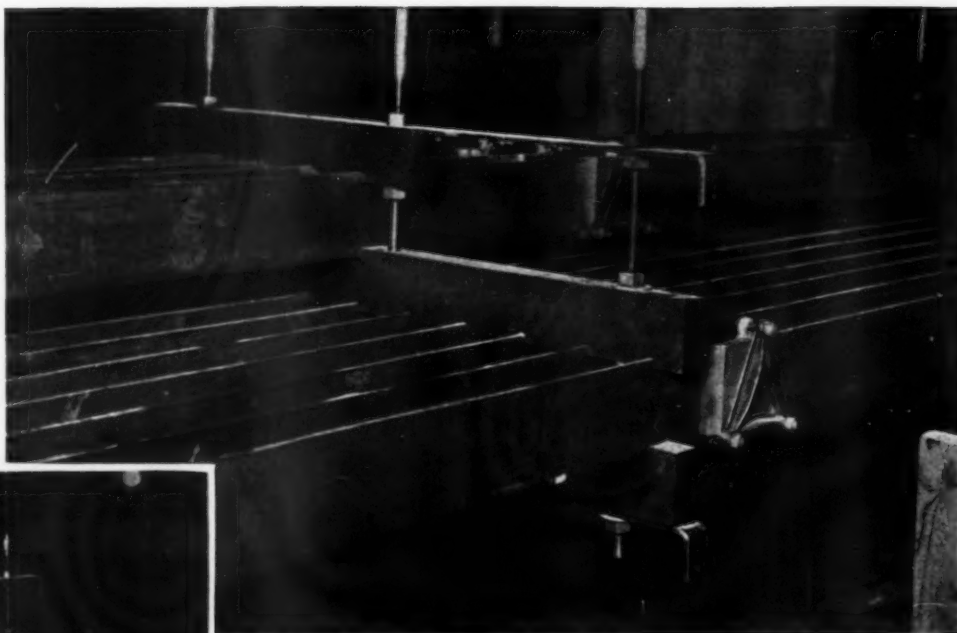


Installing this service fitting when the masonry is put in, saves as much as 16 hours later. To put this in later involves drilling through an 18-in. wall into the meterroom.

By putting a fuse cabinet in each apartment (right) instead of the old way with all fuses in the cellar (left) there is a saving in wire, conduit and labor. Besides it is much easier for the tenant, especially when the janitor cannot be located.



These fourteen $\frac{1}{4}$ in. by 4 in. copper bus bars are supported about 8 ft. apart by hangers consisting of three pieces of notched asbestos ebony supported by three $\frac{3}{8}$ in. iron rods suspended from the ceiling. The iron straps on the top and bottom pieces of ebony are to support a protective screening.



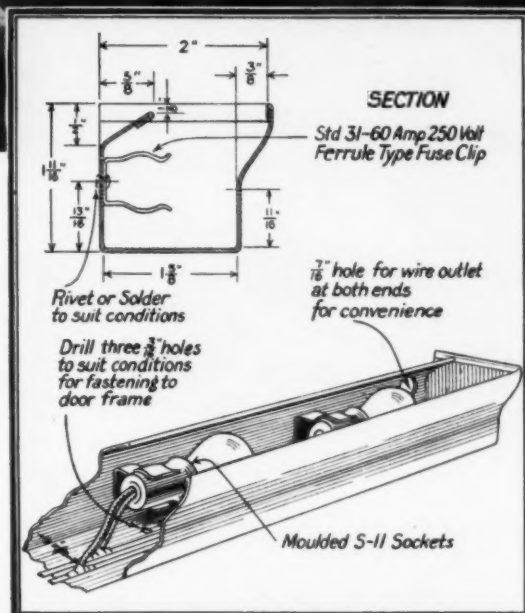
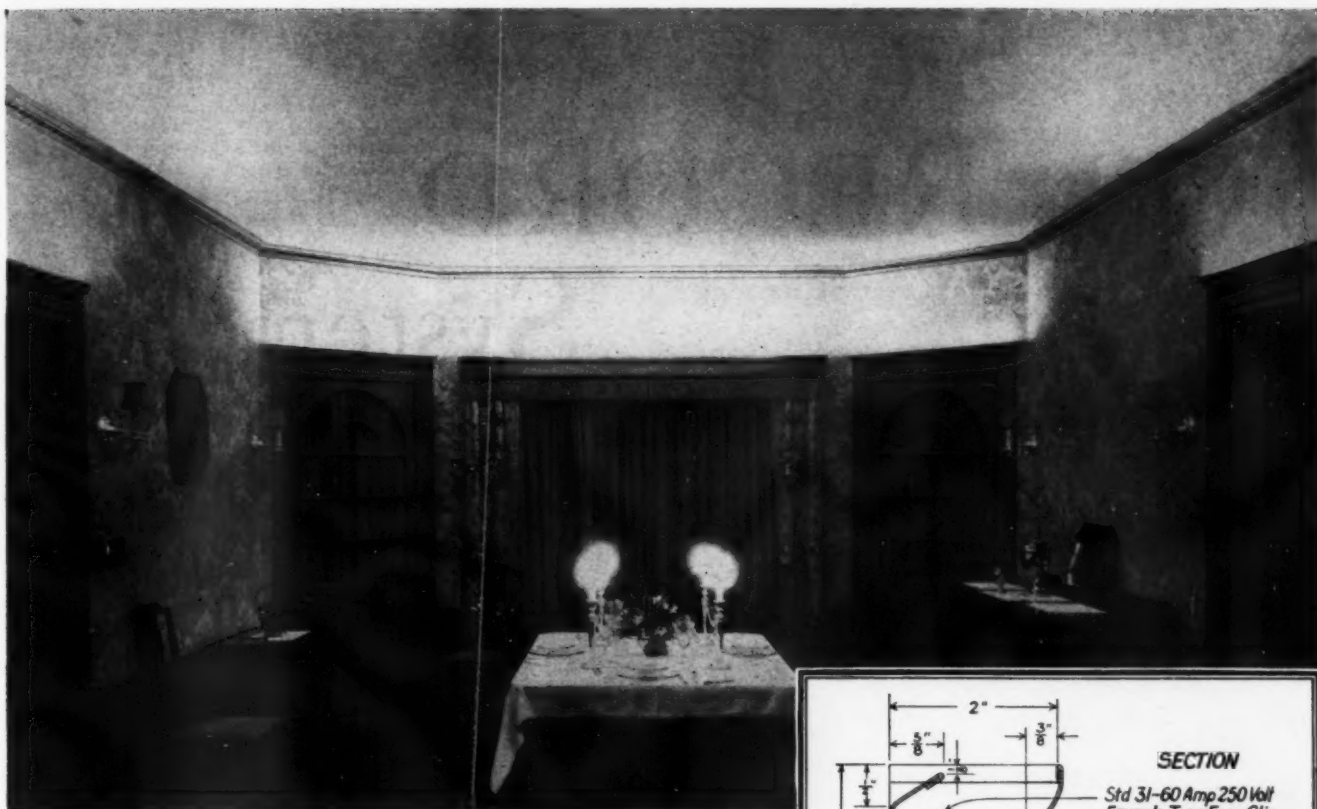
Installing a **Bus Bar Feeder**

*Method Employed by White City
Electric Co. at the New Shedd
Aquarium in Chicago*

Method of making an offset that does not require additional supports. The short pieces are held in place with standard clamps.



Bus bar bender made from a tubular scaffold base, the side of which has been cut off to give an even bearing surface on the bus. A piece of $\frac{1}{4}$ in. steel plate is screwed on the bottom, forming an adjustable clamp. The bench consists of a length of channel iron attached to a plank, bottom-side downward. Another steel plate is screwed to this channel forming the bench clamp. To make a bend the bus is slipped between the channel and the plate and the screws tightened. The hickey is clamped on the projecting end and a pull downward will make an even bend at any desired angle.



Details of cove construction showing method of lamp mounting.

Six Reasons for Using

COVE

Lighting in

Dining Rooms

By DEAN M. WARREN

Engineering Dept., National Lamp
Works, Cleveland

*With ordinary frosted lamps, cove lighting gives cold, cheerless light. Flame tint lamps may be used with it to give warmth and coziness to room, but care must be exercised not to use too much color, otherwise beauty of interior will be destroyed.

CONTRACTING

- 1 Supplementary or background lighting.
- 2 Provides way of getting general lighting for very low ceilinged rooms.
- 3 *Flexible—makes possible color changes.
- 4 Decorative.
- 5 Easily adaptable to the Art Moderne.
- 6 Provides soft mellow light, without glare.

Simple JOB RECORD System

All labor, material and job expense, detailed on forms by mechanics and transferred by office to job ticket for costing and billing, is system used by N. M. Thomson, Jr., head of the Industrial Electric Co., Chicago. Record of each job kept in folder forming permanent file.



Daily Time Ticket
for each operation of
a mechanic.

The men avoid mistakes and guesswork by filling out their tickets the moment a piece of work is completed.

DAILY TIME TICKET

WORKMAN _____

DATE _____

JO I No. _____

REMARKS _____

HRS _____

COPYRIGHT-ASSOCIATION OF P...

FORM NO. 2

I WORKED TO-DAY AS FO...

[illegible]

The Time Card is filled out to account for the man's entire day. It also shows carfare and phone calls.

The Work Order is also made out by the workman, who keeps it until the job is completed or he is transferred. This shows all labor and material, the operations performed, the customer's name and requisition number.

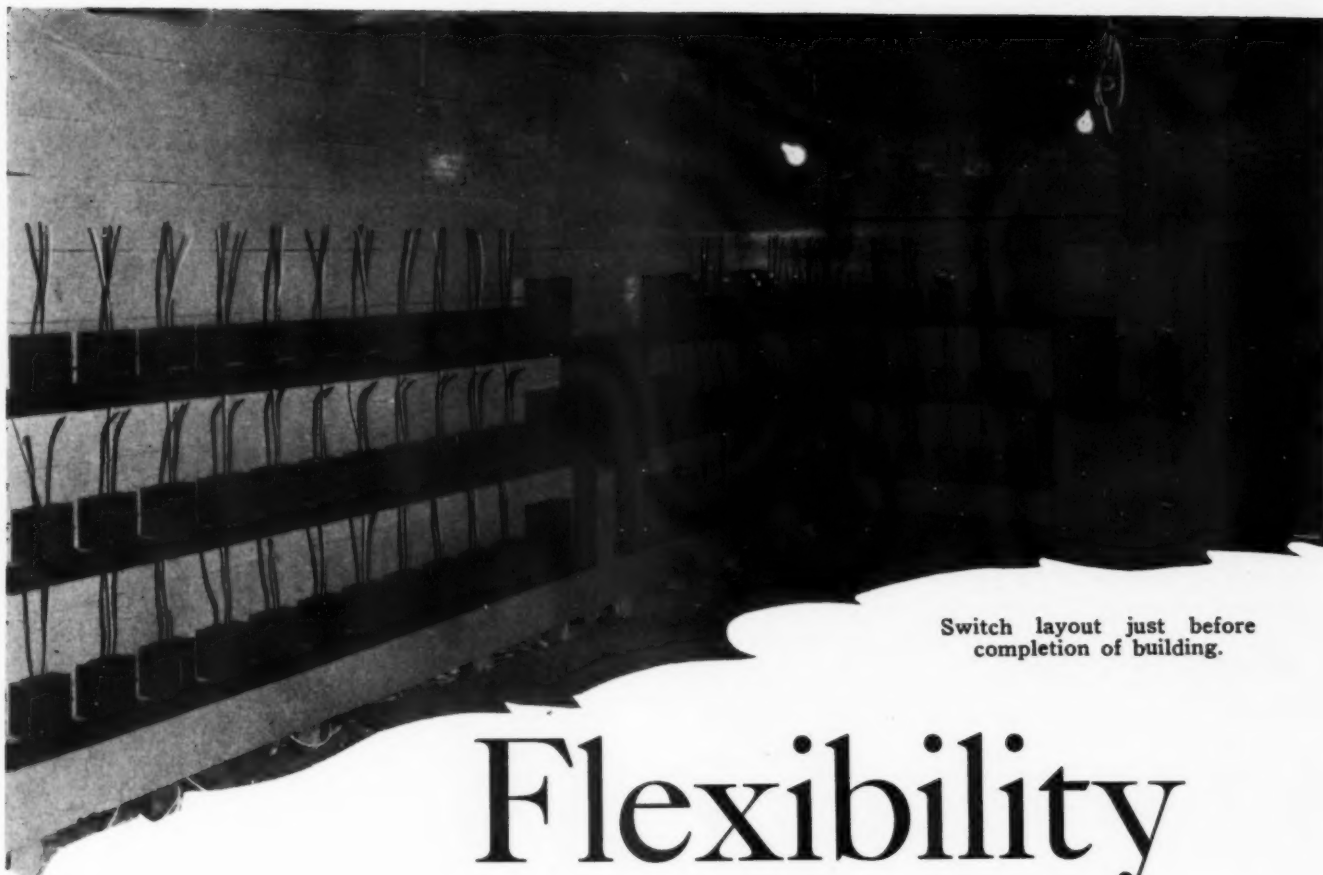
This Job Ticket, one side for labor and the other for material, is filled out in the office from the work order, and when completed provides a complete history of the job, furnishing all the information necessary in checking, pricing and billing, and later for establishing cost data for estimating.

DATE		WORK ORDER		JOB No.																																													
FOR		INDUSTRIAL ELECTRIC COMPANY																																															
AT		DESCRIPTION																																															
LABOR		MATERIAL																																															
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All tickets, memos, correspondence and data on each finished job are filed in one folder for reference. Mr. Thomson is seen checking up on a job done a year or so ago to get information which will assist him in solving a similar problem.

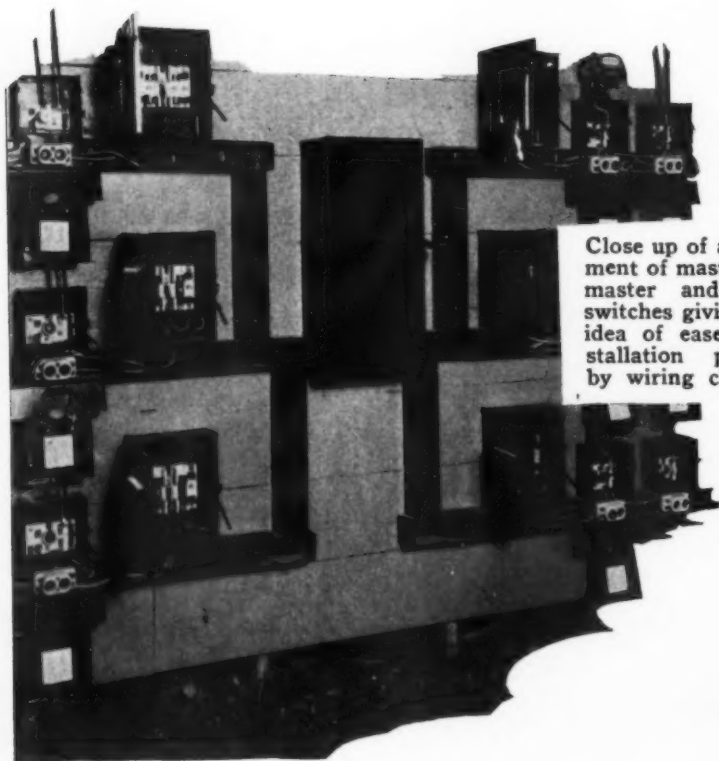




Switch layout just before completion of building.

Flexibility

in METER SERVICE SWITCH Wiring



Close up of arrangement of master, sub-master and meter switches giving good idea of ease of installation provided by wiring channels.

Large Channel Switch Installation at DeLuxe Apartment Building, Dayton, Ohio, by E. E. Rogers, Electrical Contractor, Has Following Interesting Features:

1. 6 rows or sets of 30-amp. meter service switches.
2. Each row or set is controlled by a 60-amp. sub-master switch.
3. All 6 sub-master switches are controlled by one large 200-amp. master switch.
4. Master and sub-master switches grouped at one point and here the entire installation is under control, both in whole and in part.
5. If it is required to cut everything off, this can be done.
6. If it is required to cut off any particular one of the 6 30A units to add a switch, change or repair, this can be done without disturbing the other five rows.

Photographs and data courtesy Wadsworth Electric Mfg. Co., Covington, Ky.



General store lighting is accomplished by seven 200 and 300-watt inclosed units, while over to one side the residential fixtures are shown in three 6 by 8 ft. booths.

The windows are lighted by several types of standard reflectors on 9-in. centers, switched so as to show effects of different types.



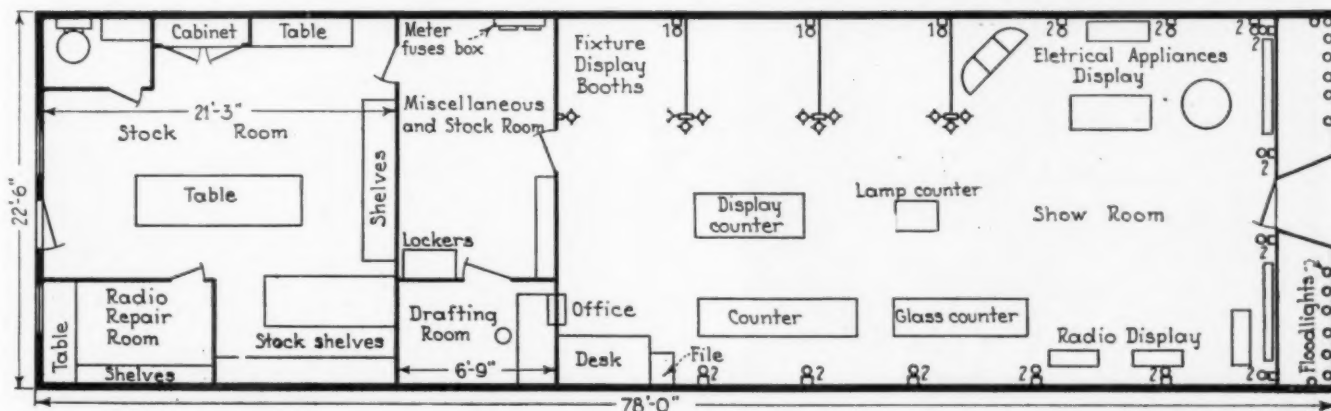
Equips

New Store to

Demonstrate LIGHTING

Modern Electric Co., Minneapolis, Minn., moves to main street to secure location and have an ideal store where commercial customers can be brought and shown by example how they should light their stores and windows.

Store, shop and stock room layout.





Red Seal Houses

*Have Almost 60%
More Outlets than Others*

Analysis of 28 Red Seal homes and 28 non-Red Seal homes of same size and character, and built at the same time, showing difference in number of outlets installed.

(Garages not included in this survey)

Prepared by *ELECTRICAL LEAGUE OF MILWAUKEE* May, 1929

	No. in Class	Type of Home No. Bed-Rooms	Ceil- ing Outlet	Wall Brack.	1-Way Switch	3-Way Switch	Conv. Outlet	Total	Average Per Home
RED									
SEAL	4	2	98	34	63	45	91	331	62.75
	10	3	286	137	210	144	268	1045	104.50
HOMES	10	4	296	196	193	187	342	1214	121.40
	4	5	165	124	138	88	189	704	176.00
Totals.....	28	..	845	491	604	464	890	3294	117.64
NON-RED	4	2	59	22	44	6	39	170	42.50
SEAL	10	3	199	101	144	57	155	656	65.60
	10	4	274	125	198	65	220	882	88.20
HOMES	4	5	110	57	77	45	95	384	96.00
Totals.....	28	..	642	305	463	173	509	2092	74.70
Difference .....	..	..	203	186	141	291	381	1202	42.94
Per Cent Increase in Red Seal Homes			31.6%	61.0%	30.5%	168.0%	74.9%	57.5%	57.5%

Wall- Brackets

61% More

Ceiling Outlets

32% More

Analysis by Milwaukee Electrical League of 28 Red Seal and 28 non-Red Seal houses of same size and character and built at same time, shows difference of over 1202 outlets.

Switches

*3Way - 168% More
1Way - 30.5% More*

Convenience Outlets

75% More

400 ft. Pull of Large

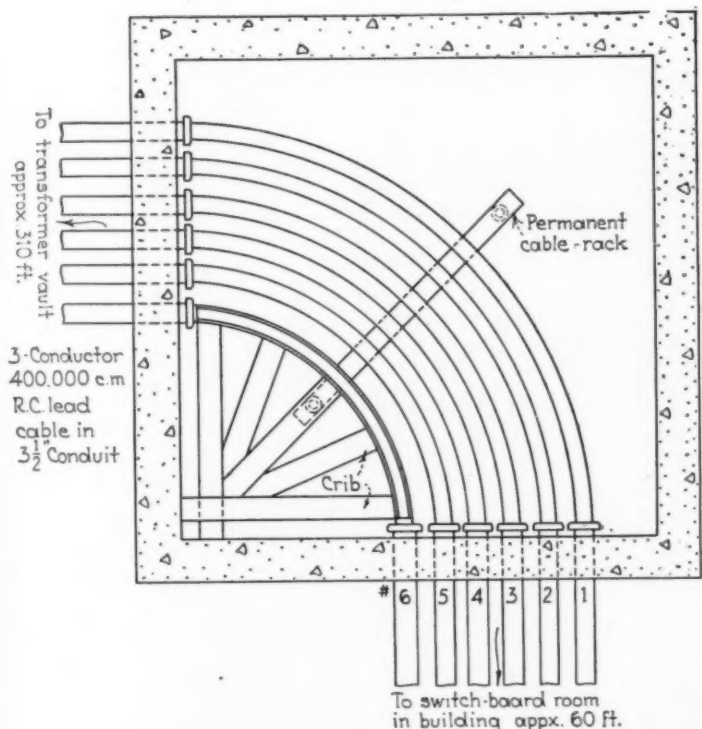
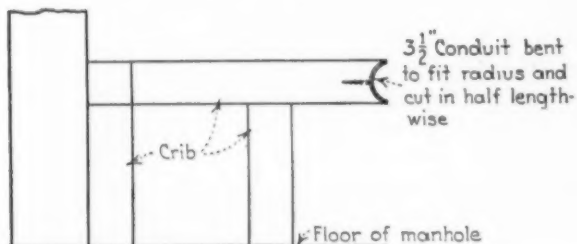
Lead Covered Cable *Without Splice*



Inside of manhole showing permanent rack supporting cable.

Six 400,000 C. M. 3-conductor cable, pulled through $3\frac{1}{2}$ in. conduit with two offsets and 90 deg. bend in manhole with three men in 55 minutes per cable, by method designed by W. A. J. Guscott at West Denver (Colo.) High School. To prevent injury, hand power was used with one man at winch, one at reel and one in manhole. Time does not include fishing or preparation of cable, reel, winch or crib.

Elevation of crib. A piece of $3\frac{1}{2}$ in. conduit was bent to fit path of cable and then sawed in half, lengthwise, and fastened to ends of wood struts of crib with wood screws with heads ground down smooth so cable would slide around uninjured.



Floor plan of manhole showing cables installed and crib in position for pulling last cable. Crib made up of wooden 4 x 4's shaped just to fit conduit No. 1. After cable No. 1 was pulled, crib was shorted for No. 2 and so on until the last cable was installed when crib was removed and permanent rack was left.

How to Charge for Small Jobs

Last month a subscriber asked how contractors charge for small jobbing work and what trouble they had in collecting. Below are statements from a number of contractors covering this point.

Minimum Plus Material

We have a labor rate of \$2.50 per hour, with a minimum charge of a half-hour, or \$1.25, plus material, according to Henderson-Hazel retail price guide.

With each job there is a work

Office Copy

WORK ORDER

Lighthouse Electric Co.

ENGINEERS AND CONTRACTORS
370 Washington Street Phone 9181
GARY, INDIANA

Date: _____ Job: _____
Contract: _____
Name: _____
Office Address: _____
Work: _____
Party giving work: _____
Received by: _____
Nature of Work: _____

Inspection No. _____
Work completed in _____ Hours _____
Customer's O. K. _____
(Please note carefully the material and labor before you start, as charge is based on stated order.)

Withhold: _____
Note on back of order mention of job and material used on new residence work note material necessary to finish job.

Work Order for Each Job.

order (illustrated). The wireman lists on the back of it all material needed. If it is a small repair job, he collects on the spot. To back him up there is attached to his order a white sticker printed in red which says: "In order to reduce cost on repairs to the minimum, small repairs are C.O.D. and is not a reflection of credit."

A. B. Harris,
Lighthouse Electric Co.,
Gary, Ind.

CONTRACTING



Red Seal Wiring
Power and House Wiring

VETTER ELECTRIC SERVICE

Electrical Contracting and Installations
Repair Work Neatly Installed
414 McDaniels Avenue
PHONE 2222 566 Detamble Ave.,
Highland Park, Illinois
July 9, 1929.

SAMPLES OF THE LATEST FIXTURES
SHOWN IN YOUR OWN HOME

Mr. F. L. Rosenthal:

Electrical repairs and installations in your home	June 7th--Repairing bells
Electrical services	1.83
Materials	.28

	\$2.11

This is a copy of bill sent to customer.

Vetter and Better All the Time
Not responsible for any damage caused by fire, water, strikes or any other means beyond our control

Bill form above and customer's card to right, showing 70 cent truck charge.

Charges for Truck

While in conversation with the leading plumber in this town three years ago, the subject of billing jobs was discussed, which was very beneficial to my business. He told me that all his bills are rendered as "plumber's services" for the amount of labor and use of truck, plus material listed as used. His point was that the plumber is furnishing more than manual labor on jobs, since he furnishes plumber's knowledge.

It dawned upon me that this was the system, so I had my printer make out bill heads, like the one enclosed, which we use on all our installations and repairs.

We are enclosing herewith a customer's card with copy of bill. Notice that electrical services include labor at \$2.25 and truck at 70 cents. There is a charge of 70 cents for each trip of truck, no matter how long it is at the job. This truck is used by repair man, and the time going to job is add-

1766 F. L. Rosenthal Vetter

June 7	1.83
June 7	.28
June 7	2.11

Bill July 9

ed to his time on the job. This has worked out very well.

A. E. Vetter,
Vetter Electric Service Co.,
Highland Park, Ill.

Charge for "Know-How"

It is much the style nowadays to kick, but because the customer kicks is no reason why you must lose money. "Average price" of others may not be profitable to you. The only thing to do is to figure your labor, with profit enough to compensate you, plus your material at a profit and your overhead.

Further, you must be able to give your customer a perfectly

(Continued on page 110)

Electrical Contracting

With Which Is Incorporated The Electragist

S. B. WILLIAMS

Editor

Health Lamp Capacity

WHAT kind of circuits are the new health, or beauty lamps being attached to? Some of them take 12 amperes.

Isn't this another pretty good argument for No. 12 or No. 10 branch circuit?

Let's Legalize Credit Control

ENOUGH experience has been gained in the operation of a credit control plan to enable the contractors and the jobbers to say whether or not it is worth while. The results speak for themselves.

The problem then, is how to extend the field of operation. Is a single plan necessary? Must the rules be the same in every city?

We see no reason why the terms cannot be decided in each city for itself, except that a wide difference in terms might send business out of one city to another that was more liberal. The general frame-work of the plan, it would seem, should be the same, but the details might well be left to each city to decide. There should, of course, be certain restrictions to prevent the occurrence of activities that might run afoul of any unfair trade practice act.

If there are any present legal complications to local credit control, and it is apparent that the legal experts for some of the interstate jobbing houses feel that there might be, why not put our legal talent to work to find a means of credit control that will accomplish the same results, but legally?

The Federal Trade Commission is urging industries to develop under its direction, rules for fair trade practice. Isn't credit-control an excellent subject for such a conference?

Unrestricted credit by jobbers to contractors has been found to be wasteful to both groups. It brings in its train unfair competition which is never for the public good.

Since the administration at Washington has demonstrated that it is opposed to waste of any sort and greatly favors group plans which will improve business without hurting the public, we believe that the Association of Electragists and the National Electrical Wholesalers Association should jointly petition the Federal Trade Commission for a conference at Washington for the purpose of drawing up a set of rules governing local credit control.

Red Seal Flexibility

CERTAIN Red Seal specifications have been changed recently to make them more flexible. This change should prove very helpful. Originally, the idea seemed to be to set the specifications sufficiently high to make it a little difficult for one to obtain a certificate. The originators of the plan were right in attempting to make Red Seal mean just a little more than a good wiring job, but it seems as though we gave ourselves a little too difficult selling job.

The idea is to get as many Red Seal jobs sold as possible, so that after a little while the idea will just naturally sell itself and Red Seal become the standard. When we make the selling job difficult, we lose the natural momentum of a fast selling idea. And, after all, what the industry wants is not a few very well wired houses, but a general advance in the wiring of all homes.

Now, Red Seal is helping very materially to increase the amount of wiring done in the non-Red Seal homes. The result is good, even if slow. More flexible Red Seal specifications, however, are desirable. Without endangering the fundamental idea of adequacy in any way, we believe that every-

thing possible should be done to make it easy for a house owner to get a Red Seal. When fifty per cent or so of the new houses become Red Seal, the selling job will no longer be difficult because Red Seal will have the social standing.

Once we have the new house market well sold, the old house market is not going to be nearly so hard a nut to crack.

Restriction of Wiring Methods

EFFORTS made to bar out by ordinance certain approved forms of wiring should not be countenanced by thinking contractors. The fact that these methods may not be as safe as some others is no reason for prohibiting their use.

We must remember that, while certain forms of wiring are safer than others, there are no dangerous forms among the approved methods.

There are certain classes of occupancy such as hospitals, schools, hotels, etc., which naturally require the very largest factor of safety that it is possible to obtain. In such buildings, only the safest known form of wiring should be used.

Where there is a smaller life and property hazard, we find no such restriction among the other building materials, so why attempt a restriction in wiring methods?

With the exception of conduit, there is little or no difference in price in wiring methods, so there is nothing, particularly, for the contractor to gain in that direction.

It has been argued that knob and tube wiring was easier to tap and therefore the layman has been encouraged to make extensions and additions. It is true that such wiring by unqualified people is frequently dangerous, but it is likewise true that the public is making additions to other forms of wiring.

The trouble lies not with the system of wiring, but with the lack of reinspection. If electrical contractors, instead of trying to restrict wiring types, will expend the same energy in trying to secure a reinspection service, they would be agreeably surprised.

In the first place, reinspection would tend to deter the handy man from making his own wiring extensions and, in the second place, reinspection would unearth a large volume of rewiring for the contractor.

Profit in Specialization

TWENTY-FIVE years ago an electrical contractor could be familiar with every phase of electrical construction—and he generally was. Today, there are so many ramifications to the use of electricity that no man can master them all.

For that reason, contractors are more and more becoming specialists. In the larger cities the line is drawn rather fine. In the smaller places, of course, there is not the opportunity for a contractor to confine himself to one line of work. In this case, he does a general wiring business, specializing on some one phase thereof.

The old specialties that came first, such as house-wiring, power work, motor repairs, etc., are familiar to all. Now we have contractors who specialize in chain-store work, in filling stations, in garment shops, in theatre work, in dry cleaning establishments, in sign maintenance, in farm wiring and numerous other ways. Also we have contractors who specialize in products such as ventilators, floodlights, show window reflectors, industrial reflectors, electric signs, etc.

There is so much for the contractor to sell that he can't be expected to try to sell everything. The better plan, it has been found, is to learn as much about the business as possible, but in particular to learn one part well.

Contractors who have turned specialists, have as a rule made out well. They have something with which to meet competition which the other fellow does not possess—knowledge. This knowledge gives them an advantage which they are quick to sense. They find that that field is easy for them and so they just naturally do a selling job.

Those contractors who have no definite specialty are urged to get one. Have some part of your business so well mastered that you are better than the other fellow.

If you are a house-wiring contractor, specialize in lighting fixtures, or radio wiring, or garage lighting or some phase of the work.

If you have a general business, find some one thing like kitchen ventilation, or show window lighting, or something else, and specialize in it. You will be surprised what a lot of added business will come your way at your price.

This is the day of specialization and the wise contractor will recognize the signs.

Code Chats

A Monthly Discussion of Wiring Practice and Questions of Interpretation, Presented with a View Toward Encouraging a Better Understanding of the National Electrical Code - - -

Conducted by F. N. M. SQUIRES

Assistant Chief Inspector, N. Y. Board of Fire Underwriters

Deep Outlet Boxes

The provisions of Rule 703-a are now quite generally in effect requiring the use of 1½ inch deep boxes for all concealed work; but, we regretfully say, the boxes which have been provided are not all that could be desired. No doubt this was caused somewhat by a desire of the manufacturers to produce these boxes as economically as possible. (And some of them certainly are cheap looking.)

Some of the manufacturers, however, are making an earnest effort to remedy some of the faults of their boxes but the installing contractors and the inspectors must do their part in the use of this material, and must often overcome the deficiencies of the manufacturer.

For instance, the contractor must see to it that the clamps in the boxes adequately bush the ends of the cables and that the clamps properly secure and securely fasten the cables to the boxes. The inspector must see that this is done. Also the contractor must make sure that he does not injure the wires when putting a fixture hickey on to a short stud in a deep box where the wires are close to the stud. Of course, inspectors noting damage to the wires must place violations on it.

Our suggestion is that the manufacturers make clamps which will hold the cable securely and which will provide a good fitting smooth bushing for the end of the cable and that they provide a stud of proper length that the hickey does not have to set way down in the box where the wires are.

Because of these difficulties, some inspection departments re-

quire the use of armored cable connectors on all boxes and unless our friends the manufacturers pay heed, this practice will very probably grow.

* * *

Fuse Protection for Motors

A correspondent advises us that in his locality a considerable difference of opinions exists relative to the motor tables and wire sizes of Section 808 of the 1928 Code and asks whether wire sizes as shown in the motor tables should be used or figured from the demand factors as shown in the table on page 107.

This misinterpretation of 808-a has been quite frequent and we desire to call attention to the fact that the so-called "table" on page 107 is not a table, but merely a list of percentages. It is there for informative purposes only, as explained in the rest of the text. The words "the following tables" and "these tables" in paragraph "a" of Section 808 do not refer to this list of percentages but refer to Tables 1, 2, 3, 4, and 5 on pages 109 to 116 inclusive.

This list of percentages is referred to in the last sentence of 808-a by the words "following percentages" and 801-a (1) goes on to say that motors larger than those shown in tables 1, 2, 3, 4, and 5 should be figured on the same basis as the motor tables, that is, according to the list of percentages.

Several persons in looking over the motor tables feel that in following the wire sizes and fuse sizes shown, they are violating long established Code practices of fuse protection. For instance, they note that for a squirrel-cage full

voltage starting motor with a name plate rating of 50 amp. a No. 4 wire may be used with a fuse of 150 amp. capacity in back of it. This does not seem right to them when for years a No. 4 wire had to be fused at not more than 70 amp. according to Table 1 of Section 612-a. But a careful consideration of the motor tables in connection with a motor circuit justifies the tables and shows that the No. 4 wire is properly protected by fuses of not over 70 amp. capacity.

Consider first what can happen in a motor circuit to cause excessive current and against which fuse protection is required. There are but two things, overloads and short circuits.

Overloads and Shorts

Overloads practically always take place in the motor due to stalled rotor or to excessive work being put on the motor. Overloads practically never develop in the circuit wires, as disturbances there are shorts. Then as motor running fuses are required to protect the motor they also protect the circuit against overloads, as the overloads always occur in the motor. Then in the case of our 50 amp. motor the No. 4 circuit wire is protected by 60 amp. fuses (as required by Column 5 of Table 1, page 110) *even though this fuse is placed after the No. 4 wire.*

But how about a short circuit? Well, a short circuit will blow almost anything and at once—no delayed action here. The large fuse as permitted by Column 7 of Table 1 is going to open quick. Take our No. 4 wire again. A short on No. 4 wires which are fed in turn



MEDINAH ATHLETIC CLUB, Chicago

Architect—Walter W. Ahlschlager, Chicago
 General Contractor—Paschen Bros., Chicago.
 Electrical Contractor—Hub Electric Co., Chicago

*This beautiful and imposing structure
 for Shrinedom in Chicago
 is protected with*

TRICO RENEWABLE FUSES

They're "Powder-Packed"

Owners of business structures and industrials everywhere recognize the outstanding factors in TRICO Renewable Fuses. This favorable acceptance is reflected in the substantial growth of TRICO year after year. They're not only dependable, but render a greater measure of service than the average renewable fuse, because the renewal element is powder-packed.

Disappointments, grief, worry, and waste are unknown where TRICO Renewable Fuses are used.

Money-Saving TRICO Factors

- No Premature Blowings
- No Unnecessary Shutdowns
- No Oxidized Contacts
- No Charred Casings
- Copper-to-Copper Contacts
- Reduced Watt Loss
- Time Lag

*And they cost no more than other
 makes of renewable fuses*



Free Samples on Request

Also Comprehensive Treatise on Renewable Fuses

TRICO FUSE MFG. CO., 1007 McKinley Ave.
 MILWAUKEE, WIS.

RENEWABLE FUSES—PLUG FUSES—NON-RENEWABLE FUSES—FUSE PULLERS

from heavier ones is going to shoot a few hundred amperes through the circuit but the 150 amp. fuse (Column 7) is going to let go long before any appreciable heat is developed in the No. 4 wire.

Some have pointed out that the starting current of the motor exceeds the safe carrying capacity of the circuit wires as shown in the tables. This is true but it is found that practically no heat is developed in the wires during this starting period.

* * *

Bushings for Armored Cable

A correspondent asks if rule 505-i requires that the conductors of flexible armored cables be bushed by a separate fibre bushing as required by his local inspection department.

The rule quoted requires that at each point where the armor terminates additional protection to that provided on the conductors be provided so that the conductors will be properly bushed as a protection against the sharp edges of the cut armor and the rule further specifies that it be provided by an approved connector or clamp.

The 1929 Code will change the words "connectors or clamps" in 505-i to "means" which will allow of any approved "means" whether provided by connectors, clamps,

fibre bushings, or any other approved method. The words "so that the conductor will be adequately bushed" do not require the fibre bushings on all cables. But don't forget that on one type of cable the fibre bushings are absolutely required.

There are three general types of cable in use today. First, the old style cable having rubber insulation over the conductor, then a braid over each rubber covered wire, then a second braid covering the two together making a duplex conductor over which is wound the steel armor. This type requires that "additional means," such as the smooth hole in a connector or the brass or spring ferrule, be provided where entering a box.

The second type of cable is the armored bushed cable which is called the "ABC" type. This is similar to the first except that in place of the second braid wound over the two single braided conductors, a layer of four strands of tough paper is wound on, over which the armor is wound. Then, as we pointed out last month, the little red fibre bushings are provided as a part of the cable taking the place of the second braid. And don't forget that the fibre bushings are a part of the cable and that bushings are a part of the approval issued by the Laboratories; that is, without the bushings the Labora-

tories' approval does not apply.

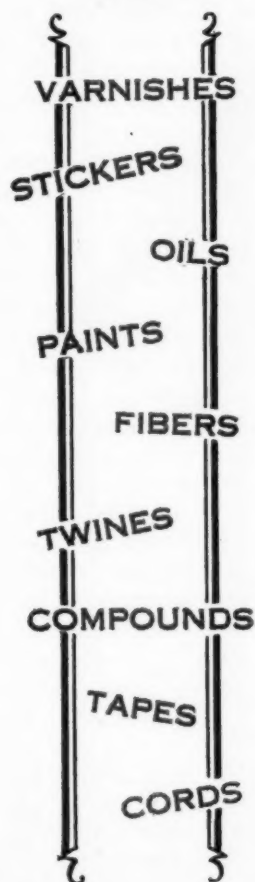
Now here is where a little difference comes in with the "ABC" type of cable: The red fibre bushing provides the "approved means" specified in the 1929 rule. This means that the brass or spring ferrule generally used in switch or receptacle boxes is not required and that a different type of armored cable connector may be used. And the manufacturers of the ABC cables are supplying connectors which are slotted so that the inspectors may see and be sure that the red fibre bushings are used. But—and this is also important—these slotted connectors must *not* be used without the fibre bushings as they otherwise allow the sharp end of the armor to protrude which, of course, is liable to cut the insulation of the wires.

The third type of cable is the "Triple I," or triple insulated, which has the paper wrapping wound directly over the rubber insulation of each conductor and then a braid wound over the paper wrapping of each conductor. These wires are not duplexed under one braiding but the armor is wound over this one braid. This type requires the protection afforded by the approved type of connectors or clamps, but the manufacturers are considering some form of bushing to be used similar to the fibre bushing of the "ABC" cable.



THE FINAL COURT OF APPROVAL:—Before classifications and labels are finally awarded, before standards are finally accepted by Underwriters' Laboratories, the Electrical Council must be satisfied as to the accuracy of the conclusions reached. This photograph of the Council was taken during the meeting of the Council at the Laboratories, April 9 and 10, 1929. Standing, left to right: Frank R. Daniel, Milwaukee; Walter J. Burke, Boston; C. K. Cregier, Chicago; John S. Caldwell, Boston; J. Whitner, for H. N. Pye, Atlanta; F. D. Weber, Portland; W. W. Vaughn, Syracuse; F. G. Waldenfels, Chicago; F. H. Moore, Indianapolis; R. L. Daniel, Minneapolis; H. N. Beecher, Los Angeles; W. S. Boyd, Chicago; F. A. Cambridge, Winnipeg; Geo. F. Sheridan, New York; J. C. Forsyth, New York; C. W. Mitchell, San Francisco; V. H. Tousley, Chicago; R. B. Shepard, New York. Seated, W. W. Wise, New York; George L. Swan, New York; L. C. Ilsley, Pittsburgh; Ben W. Clark, Detroit; M. B. Gleeson, Philadelphia; A. G. Wilbur, Hartford; F. O. Evertz, Columbus; Dana Pierce, Chicago; I. A. Barley, Denver; H. A. Patton, Seattle; Geo. Welman, for R. P. Strong, New Orleans; K. W. Adkins, St. Louis; M. G. Lloyd, Washington, D. C.; Warren Hadley, Washington, D. C.; Oscar Frykman, Minneapolis; and Robert M. Nesbitt, Philadelphia.

A good soldering paste depends on the flux



A GOOD soldering paste is known by the permanency of the joints it makes. Years of G-E laboratory study and experiment are behind the product known as G-E soldering paste (No. 293). Contractors are learning that No. 293 meets the soldering requirements of the electrical industry. They are finding it easy to use and easy to sell.

G-E soldering paste has been inspected and listed by the National Board of Fire Underwriters.

Other equally high-grade fluxes are G-E soldering sticks (No. 295), G-E soldering salt solution (No. 294), and G-E soldering fluid (No. 291).

Get better acquainted with the complete line of G-E friction and rubber tapes and other insulating materials. The G-E Merchandise Distributor near you will tell you more about them. Fill in and mail the coupon below. You will receive a copy of the G-E Insulating Materials Catalog containing valuable data on this line.

800-508

JOIN US IN THE GENERAL ELECTRIC HOUR, BROADCAST EVERY SATURDAY AT 8 P.M., E.S.T. ON A NATION-WIDE N.B.C. NETWORK

GENERAL ELECTRIC

Section I-226, Merchandise Dept.,
General Electric Company,
Bridgeport, Conn.

Gentlemen:

Please send me a copy of the G-E Insulating Materials Catalog.

A. E. I.

*News and Service
Information*

*Material for this department is supplied by the headquarters staff of the Association of Electragists, International,
420 Lexington Avenue, New York, N. Y.*

New Charter Applications

Applications for charter pending approval of the A. E. I. membership committee show a widening recognition by local Electragist groups of the valuable organization advantages to be gained through charter affiliation as local chapters.

In addition to the list appearing in the May issue, applications have been filed by the associations in New Orleans, La., Portland, Ore., Des Moines, Iowa, Flint and Kalamazoo, Mich., and Daytona, Fla. Electragists in Tampa and Jacksonville, Fla., Richmond, Va., St. Louis, Mo., and Omaha, Nebr., are applying for charter affiliation.

* * *

Opposed to a National Safety Code

The Association of Electragists, International, is opposed to any movement for the enactment of drastic safety legislation to bring about accident prevention through mandatory code conditions. L. E. Mayer, A. E. I. Executive Committeeman, has so advised the National Safety Council in their consideration of a recommendation that they sponsor a National Safety Code.

Mr. Mayer pointed out that the voluntary and educational methods which are being pursued in the prevention of accidents are effectively reducing accidents to a minimum and that only through the education of the working force can further reduction of accidents go forward.

The humanitarian and economic aspects of safety work should awaken every employer to the importance of educational methods with his working force, and pro-

vide insurance against adverse, drastic safety legislation.

Accidents cannot be prevented by inflexible, detailed codes which penalize the contractor for the carelessness or ignorance of a workman.

The A. E. I. urges every electrical contractor to start a practical, educational, accident prevention campaign in his own organization.

* * *

Joint Committee on Range Wiring

George Andrae, of the Herman Andrae Electric Company, Milwaukee, Wis., has been appointed to represent the A. E. I. on a joint committee on range wiring. H. J. Mauger, of the Edison Electric Appliance Company, has been appointed by the National Electrical Manufacturers Association to represent that group and E. I.



George Andrae

Brand of the New York Power & Light Co., Albany, N. Y., for the N. E. L. A.

In inviting this conference the A. E. I. pointed out that there is a difficult hurdle to surmount in range selling due to the present costs of equipment and installation. Frequently, the electrical contractor is blamed for the cost of range wiring, whereas the real causes are such that he cannot overcome them by himself.

High installation costs result from many things—inadequate service and wiring capacity in existing installations; lack of standardization in installation methods; lack of standardization in power company's service entrance requirements; variance in local code requirements, and lack of standard practice in efficient installation methods due to lack of standard conditions for field studies.

The joint committee for range wiring will also take up the question of standardization of range equipment and other factors which may be made the basis for lower range installation costs.

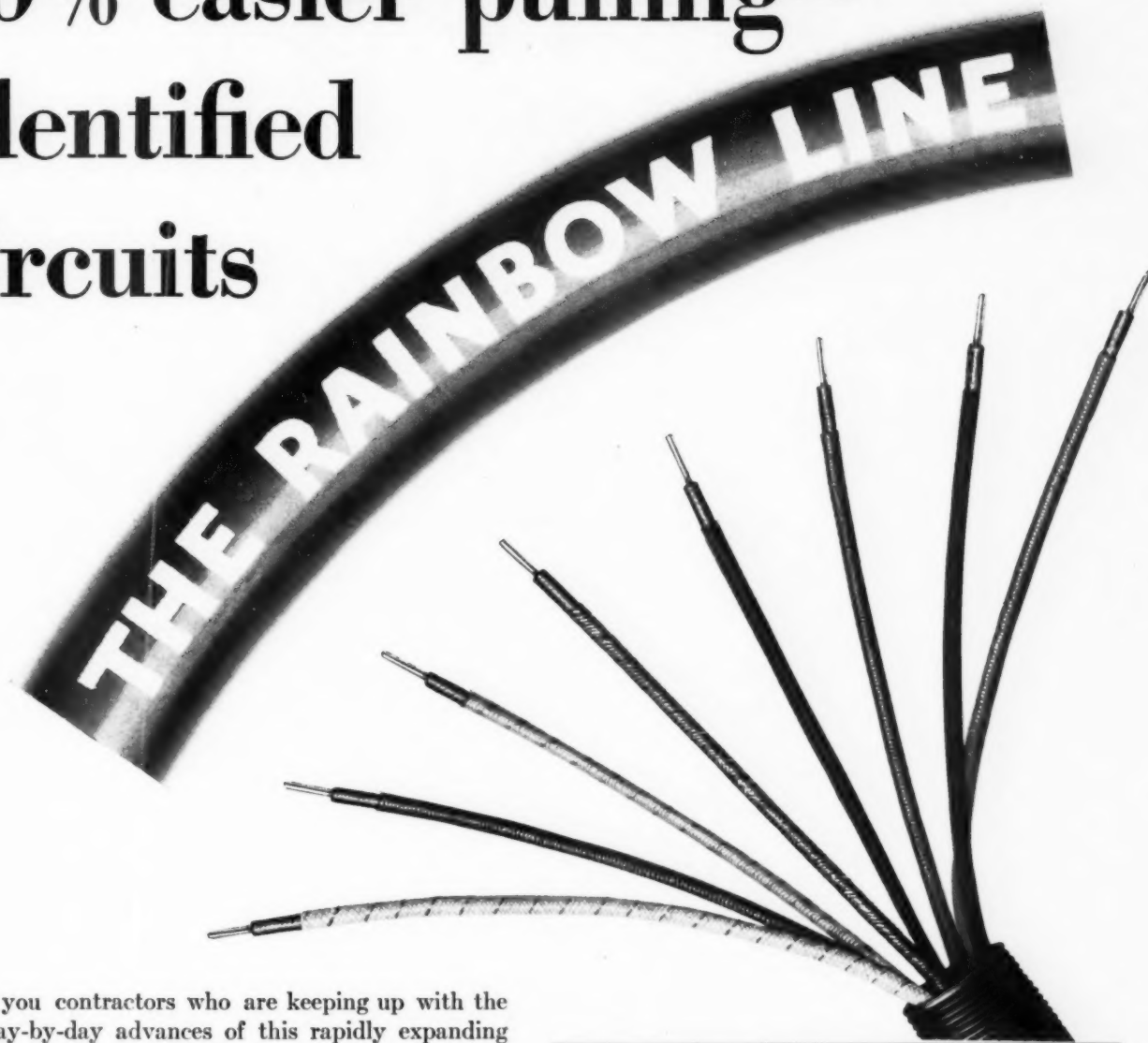
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Charter Certificates Issued

The number of charter certificates issued since April 15 more than doubles the number for the previous month's period. In addition to those reported last month, the chapters in Chicago, Ill., Memphis, Tenn., Monroe, La., Atlanta, Ga., Greater Miami and Orlando, Fla., Fort Worth and Waco, Texas, Winnipeg, Canada, and New York City have completed their affiliation and are now officially recorded as A. E. I. chapters.

Maintaining this ratio of in-

50% easier pulling— Identified circuits



TO you contractors who are keeping up with the day-by-day advances of this rapidly expanding industry, we have something to say.

This new Rainbow Line of "U. S." Paracore Wires has created much comment among the electrical contractors and consulting engineers who have examined it. They have spoken of it enthusiastically and have shown how they can use it to advantage in their own work. They all agree that it will eliminate much of their circuit tracing and wire tagging.

But we can't talk to all of you personally, and we want to know what you think of it and in what various ways it will help you in your work.

Will you write us what YOU think? Give diagrams of the circuits on which YOU would use these wires.

To every contractor, engineer and architect who will send in concrete suggestions as to how identified circuits can be used in a specific installation we will

give a set of 5 electrical wiring charts that usually sell for \$5.00. These charts will be quite valuable to you. Tack them on your wall and do away with the necessity of referring to hand-books when making wire estimates.

Before writing your comments you will want to see samples of the "U. S." Rainbow Line in their actual colors. Fill out the coupon below and we will send you a set by return mail.

We will gladly serve you through your jobber

United States  Rubber Company

1790 BROADWAY • NEW YORK

United States Rubber Company, Room No. 452, 1790 Broadway, New York, N. Y.

Please send me free samples of the 8 colored wires comprising the "U. S." Rainbow Line.

Name _____ Address _____
Company _____ Title _____

THE RAINBOW LINE OF "U. S." PARACORE WIRES & CABLES



STEELTUBES [E. M. T.]* has the same inside diameter as heavy conduit. Made in three sizes ($\frac{1}{2}$ ", $\frac{3}{4}$ " and 1") with diameters and wall thickness shown above. One coupling furnished with each ten-foot length.

10

STEELTUBES Advantages

- 1—Saves thread-cutting
- 2—Bends easily
- 3—Light—handles easily
- 4—Takes any fitting
- 5—Speeds up the job
- 6—Resists corrosion
- 7—Costs less
- 8—Standard price
- 9—Carries Underwriters' Label
- 10—Local stocks always available.

Easy to **BEND** on the **JOB**

ANY GOOD WORKMAN can qualify as an expert conduit bender with STEELTUBES [E. M. T.]*. A few minutes' practice is all it takes. Try it yourself.

The only tool you need is the TUBENDER. Slip it over the tubing—give an easy pull. Then jog the foot of the TUBENDER toward you—and pull again. In two minutes [or less] you have a smooth, perfect bend.

Complicated bends around beams and posts are easy; you don't have to turn the tubing to tighten up a fitting.

Ask for our sample package with the folder answering your questions about this new product.

Electrical Division
STEEL AND TUBES, INC.
Cleveland, Ohio

(A subsidiary of Republic Iron & Steel Co.)

★STEELTUBES Electrical Metallic Tubing is threadless, strong, light and easy to handle. Costs less to buy. Saves time and money on the job.

Steeltubes

crease, the association should have one hundred operating chapters represented at the annual convention in Swampscott next September.

While it may not be possible to reach the goal of two hundred during the first year of chapter organization, the method of expansion recommended by the Executive Committee can go far in building to that mark, each existing chapter immediately including in its program of activities the formation of a chapter in a neighboring city.

* * *

Chamber of Commerce Meeting

The A. E. I. was represented by three delegates at the annual meeting of the Chamber of Commerce of the United States held in Washington on April 29 to May 3.

L. K. Comstock, executive committeeman of the A. E. I., was selected by President Butterworth as a member of the Resolutions Committee; Howard P. Foley of Washington, served as National Councillor for the A. E. I., and

Support Sound Distribution Policies

Whereas, This Association recognizes that the development of sounder distribution policies by our branch of the industry depends upon a proper recognition and support of those individuals and firms, whether manufacturers or jobbers, whose policies of distribution are designed to best serve each factor in distribution; therefore

Be It Resolved, That this Association urges all of its members to individually support those interests in the electrical industry whose efforts are directed towards the channels of distribution defined by the Trade Policy of this Association.

Adopted at 1925
Electrictist Convention.

General Manager Davis attended the round table discussions on trade problems.

Mr. Comstock has been elected to represent the Merchants Association of New York at the International Chamber of Commerce convention in Amsterdam, Holland, in July.

Field Activities

After a trip through eastern and central Texas extending over many weeks, J. R. Wilcox, A. E. I. field representative, has turned his steps northward. During May he visited most of the principal centers in Arkansas and Oklahoma, and for the first half of June will be occupied in southeastern Missouri.

Following Mr. Wilcox' visit in Texas, presenting the chapter plan and assisting local electragists in the preliminary organization work, steps are being taken for the establishment of chapters in Wichita Falls, Amarillo, Houston, Austin, Beaumont and Galveston.

With the Fort Worth and Waco chapters already approved for charter, the application for charter of the Dallas association filed, and inquiries from the El Paso electragists indicating their desire for early affiliation, the Texas membership may soon be ready to direct its united effort to good account through the practically complete organization of the representative contractors and dealers within its borders.

NEW ELECTRAGISTS

The following electrical contractor dealers have been elected to membership in the A. E. I. since the publication of the list in the May issue:

ALABAMA

Birmingham

Davidson Elec. Co.
Isaacks & Townsend
Southern Elec. Co.

Ensley

E. A. Trotman

FLORIDA

Coral Gables

R. E. Lowry Elec. Co.
A. W. Miller
J. T. Myers Elec. Co.
C. D. Pridham
D. D. Shaffer Elec. Co.

Hialeah

Julius Grethen

Miami

Ajax Elec. Co., Inc.
Allapattah Elec. Co.
American Elec. Co.
W. A. Bowers
Coconut Grove Elec'l Sup.
Elec'l Service Shop

Gen. Maintenance & Contracting Co.

Loren R. Goddard
Harrington Elec. Co.
L. B. Harvey Elec.
Hoose Elec. Co.
Geo. LaVigne Co.
R. D. LeRoy
Magic Elec. Co.
Newland Corp.
S. L. Oliver
Clark S. Remley
Riverside Elec. Co.
Rossey Elec. Co.
Standard Elec. Co.
W. E. Sunderland
Triangle Elec. Co.
Wagner Elec. Co.
West Side Radio & Elec. Co.
R. L. Williams
Woehler Elec. Co.

Miami Beach

Beach Elec. Co.
Brill Elec. Co.
The Brown Elec'l Const. Co.
Elec'l Const. Co.
J. E. Hardy
E. E. Larkin

Lyon Elec. Co.
Harvey McLemore

Miami Shores

Keen-Terrell Elec.

IOWA

Des Moines

Crispin Battery & Elec. Co.
Elec. Equip. Co.
Hiland Elec. Co.
Thomas Elec. Co.
Weston Plbg. & Elec. Co.
Wiltsie Elec. Co.

NEW YORK

Rochester

R. W. Scheuer

TEXAS

Beaumont

E. B. Hammel Elec. Co.

Dallas

Dallas Elec. Co.
Elec. Const. Co.
England's Elec. Shop, Inc.
J. M. Johnson & Co.

Paramount Elec. Co.
Ro-Nile Elec. Co.
Superior Elec. Co.

Fort Worth

Goolsby Elec. Co.
Hensley Elec. Co.
McDonald Elec. Co.
Shotts Elec. Co.
Wortham Elec. Co.

Houston

Andrews Elec. Co.
Caywood Elec. Co.

Waco

Doyle Elec. Co.
Gee's Elec. Co.
Geo. H. Lane Elec.

CANADA

Winnipeg, Man.

Bridgman Hdwe. Co.
Star Elec. Co.

FOREIGN

Bahamas, B. W. I.
Neill Bros.

In the Editor's Mail



Statement of Fact

Editor,
ELECTRICAL CONTRACTING:

The editorial in your last issue entitled "Is There Any Money in the Electrical Contracting Business?" is good and a clean cut statement of fact.

The question is—how are we going to make it effective? Or in other words, how can we force or coax the electrical contractors into accepting the truth of this statement and putting it into practical effect.

Alfred J. Hixon,
Hixon Electric Co.
Boston, Mass.

* * *

Less Than Standard Package—List

Editor,
ELECTRICAL CONTRACTING:

All contractors worthy of the name should be willing to buy in unit or standard packages at wholesale prices. Other purchases should be at list to everybody, contractors included.

Any objection to this, based upon apparent discrimination against the so-called small contractor, does not hold because of the purchase of a few items at list prices. Our endeavor should be to raise the small contractor to the level of the large contractor and not bring the larger contractor down the level of the smaller contractor. Practically all sales of \$5.00 or under by the jobbing fraternity are without profit. This would be a step in the right direction for the economic distribution of materials

and help the jobber reduce his overhead, which in turn is bound to be beneficial to the public, whose interests at all times we must conserve.

Louis Kalischer.
Brooklyn, N. Y.

* * *

Cash for Small Orders

Editor,
ELECTRICAL CONTRACTING:

With respect to the editorial in your May issue, entitled "Wholesale Buying in \$1.00 lots," it is my impression that the four large local jobbers refuse to sell the small buyer, except on a cash basis, and then at an increase in price over what we have to pay. It is a subject that has been of some concern to them for a good many years, and as I understand it, the solution seems to be to pass up this class of business entirely. Of course you will always have the "cash and carry" jobber, whose function it is to serve this class of trade.

The five larger electrical contractors maintain adequate stocks, buy in fairly large quantities, and maintain their own delivery service, not starting any operation until the materials are on the job.

The so called curb stoners never bother us, they take care of a large part of the small fry business, which is more or less of a nuisance anyway. They are, in a way, a necessary evil.

There are three classes of electrical contractors, those who specialize on industrial and institutional work only, those who maintain retail stores, do pick

up business, wire apartments, and the better class of houses, and the curb stoners who do all the small work. The present scale of journeyman's wage limits us to the very highest class of the former work. We are better off in the long run handling this class of business only, leaving the pick up business to the small fellow.

The problem among the five contractors mentioned, is to get the spirit of "live and let live," across.

M. H. Salmon,
M. H. Salmon Electric Co., Inc.
Syracuse, N. Y.

* * *

Small Purchases Should Have Higher Price

Editor,
ELECTRICAL CONTRACTING:

I was more than surprised to see in your last issue the big percentage of small purchases from the jobbers. Surely the number of small purchases you mention would cause the average legitimate jobbers to make prices that would take care of overhead on purchases of this size.

In instances where we make a purchase of less than \$5.00 we surely would be willing to buy at the smaller margin, than when we buy quantity orders. However, it is not our policy to buy in small quantities. We try as much as possible to always make our purchases to a standard package.

F. O. Broyles,
Broyles Electric Co.
Marion, Ind.

* * *

White Pipe Saves Labor

Editor,
ELECTRICAL CONTRACTING:

Your editorial in the April issue on "White Pipe" was splendid, but it did not go far enough. Since ELECTRICAL CONTRACTING is the contractors' best friend, a little space devoted to this cause will "put it over."

Our own experience over a period of years on various makes of "white pipe" has settled the question that there is a "saving" on all sizes in labor cost. We have not bought a foot of black pipe in over two years.

On one job having 5,000 ft. or 1,000 threads not a single one had to be "cleaned" or a coupling re-

(Continued on page 91)

More . . . Renewals

WHEN you buy renewable fuses you save on yearly fuse costs. But how much you save is measured in terms of renewals—the number of blow-outs each fuse will withstand. Union Renewables endure the stress and strain of an unusually large number of blowouts. The extra heavy grey horn fibre casing—vented by an exclusive method which quickly releases the tremendous pressure of blowing—insures exceptional strength—longer life and service and reduced fuse costs. Simplified design and fewer parts make for quicker, easier renewals—less "time out" when a fuse blows. Made in knife-blade and ferrule types for dependable, low cost protection of all sizes of motors.

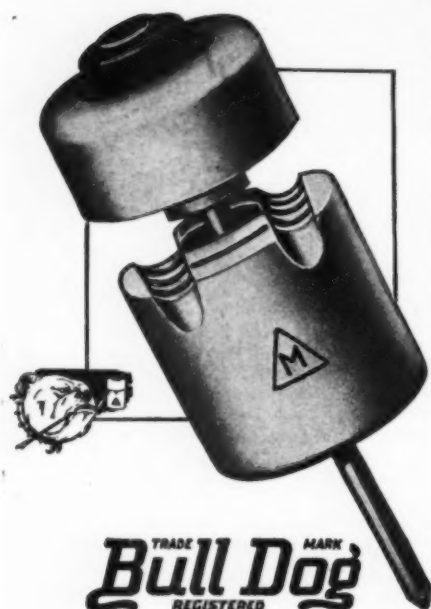
Catalog No. 33 gives detailed information. The Union Fuse Chart indicates the proper size fuse to use on all motors. Shall we send you a copy?

Jefferson Electric Company
1503 West 15th Street Chicago, Ill.

UNION FUSES

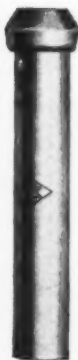
Because they are worth more they really cost less

"It has a grip like its namesake"



Split Knobs

THESE are the safe, approved knobs for all types of residence wiring. They mean better jobs at no added cost. Bull Dog Split Knobs, together with Illinois Porcelain Tubes, Cleats and Solid Knobs form a complete line of standard porcelain.



Sold Through Wholesalers

Illinois Electric Porcelain Co.
Macomb, Illinois

versed. Also we were agreeably surprised to find that the wire pulling cost dropped far below expectations:

No. 14 Duplex wire $3\frac{1}{2}$ hrs. per 1,000 ft. (1 man only). Outlets per circuit—5 ceilings. Feet per outlet—18 ft. Home runs (average)—50 ft.

The conduit used was GE white conduit, the hot dipped galvanized giving a clean smooth inside surface, which accounts for the above low "pushing cost."

In making up an estimate, where galvanized may be specified—just simply use the "black prices" instead of re-vamping the electragerist data book.

The best argument for a "preferred" price.

Jno. F. Costelow,
Costelow Electric Co.
Kansas City, Mo.

* * *

Where is That Co-operative Spirit?

Editor,
ELECTRICAL CONTRACTING:

In last month's issue "Subscriber" submits a problem on the charges for small jobs. I have been up against the same thing when I was located in a residential neighborhood and believe that this small work does not pay. This

class of work does not concern the large contractor, but to one catering to residential work it is really a problem. To keep a mechanic always on hand for these calls which are usually urgent, does not pay without making a minimum charge, but on account of the small amount of time usually consumed on this work the customer, nearly always the female of the species, will in the majority of cases make a kick no matter what is charged.

What then is the contractor to do with this class of work? It appears to me that the contractors in general do not show enough interest in these common problems to bring them down to some conclusion. Even the editor himself for reasons of his own does not give us the benefit of his views but asks readers in a footnote to reply what is their experience; with the result that no one appears to be interested enough to reply and the matter stands just where it was.

That in my humble opinion is just what is the trouble with this business. There is no co-operative spirit.

Louis Stern,
Philadelphia, Pa.

[Attention of our readers is directed to page 21 for a more extended treatment of this subject.—Editor]



WELL-KNOWN NASHVILLE FIRMS CONSOLIDATE:—Two well-established and respected electrical contracting firms of Nashville, Tenn., have been brought together permanently by the death of A. A. Cunningham, head of Cunningham Electric Co., formerly located at 316 Church street. After Mr. Cunningham's decease, the Deaderick & Davis firm bought his company and moved its entire stock to 720-724 Commerce street, where Daimey Deaderick and L. J. Davis (center) have operated for years. However, the name of Cunningham Electric Co., will be retained for that part of the business. The entire establishment has been remodeled and the final result will be a much larger store front and a new and efficient stockroom layout with the main idea being convenience in transacting business. N. R. Deaderick (left), for five years foreman and contact man under Mr. Cunningham, is a brother to D. J. (Daimey) Deaderick, head of the Deaderick & Davis Electric Co.

"All That the Name Implies"

EFFICIENT Lighting becomes a reality only through the use of scientifically designed equipment, with which is associated the best materials and finest workmanship obtainable.

Thus it is that Sterling Reflectors, Sterling Flood-Lighting Equipment, and other Sterling products are invariably the choice where lighting equipment of the most exacting specifications is required for the job.

The efficiency-performance of Sterling Equipment is exceptionally high. You may depend upon it to furnish pleasing, satisfying results with every installation.

Reflector & Illuminating Co.

Manufacturers & Engineers

1415 Jackson Blvd., Chicago, U.S.A.

REPRESENTATIVES IN ALL PRINCIPAL CITIES





improved

Standard Line

"RED SPOT" HANGERS

The labor-saving features of the Bronze Embossed "Red Spot" Hangers have now been incorporated in the "Red Spot" No. 1300 Standard Line.

The line has also been expanded to include: (a) all regular fitter sizes from 2 1/4" to 10", (b) semi-rigid and twin-loop stem construction, (c) stem spindles and chain-break for the ornamentation of both chain and stem units, and (d) complete remodeling of holder design so that fitters of all sizes in both suspension and side-wall types have similar contour.

These improvements mean faster, easier sales—lower cost of hanging—more profit.

FREE SAMPLES FOR THE DESERVING

The F. W. WAKEFIELD BRASS CO., Vermilion, Ohio, U. S. A.

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Sheet
1300**

Send me Data Sheet 1300 ☐

I would like to see sample ☐

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Name

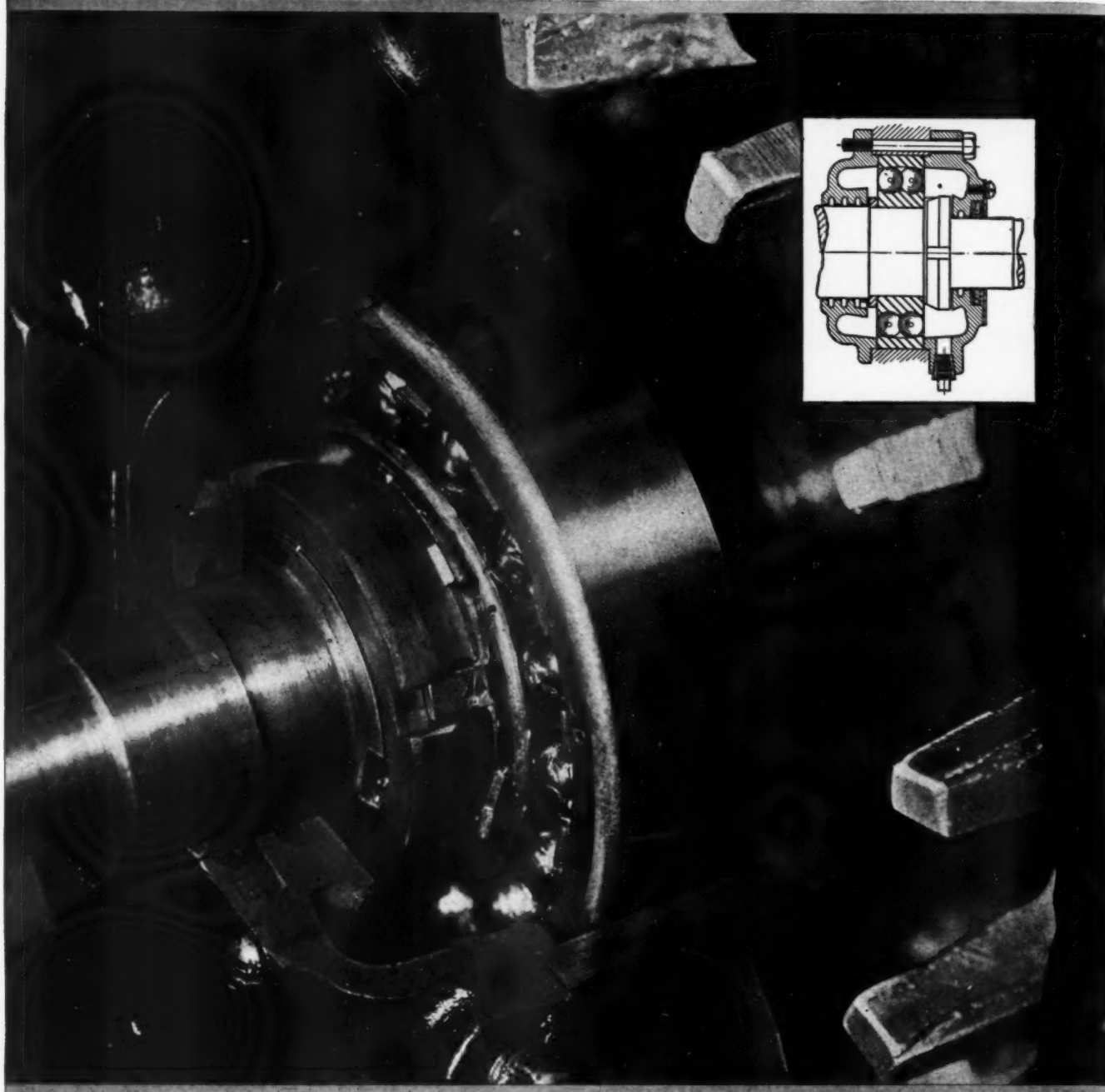
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City..... State.....



Double Cap Ball Bearings

These Wagner double-cap ball bearings permit the removal of rotor without pulling bearings from shaft, and without dirt or grit damaging bearings. Such construction results from field experience incorporated into Wagner design . . . one more reason why Wagner motor service to industry is complete.



Let Wagner engineering experience with all commercial types of motors help you select the right motor.

Literature on Request

WAGNER ELECTRIC CORPORATION

6400 Plymouth Avenue, St. Louis, U. S. A.

Wagner Sales Offices and Service Stations in 25 Principal Cities

Products: FANS . . . Desk, Wall and Ceiling
TRANSFORMERS . . . Power, Distribution and Instrument
MOTORS . . . Single-phase, Polyphase and Direct Current

Wagner
...quality

Suggested RESALE PRICES *for* Wiring Supplies

The prices listed on the following pages are merely suggested resale prices for the commonly used standard supplies and equipment employed in electrical construction work. They are based on average current trade costs throughout the country, very largely obtained from jobbers' price sheets, and are also based on average overhead charges.

* * *

Obviously, prices can be suggested only for the widely used products that are nationally distributed, and under no circumstances is this section intended to function as a directory of products or manufacturers.

* * *

The publishers wish to again emphasize that these are merely *suggested* resale prices and while every effort is made to make them universally applicable and accurate we cannot guarantee them or assume any responsibility for errors.

* * *

The prices appearing in this section will be completely revised each month as trade prices may change.

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Suggested Resale Prices for Wiring Supplies

These are merely suggested resale prices for the commonly used products that appear regularly on jobber price lists. They are figured on generally accepted principles for computing resale prices and should cover average conditions but are not guaranteed. (See note on title page.)

A-SUNDRIES

ASBESTOS					
Asbestos Millboard—Per Pound—20c.					
ANNUNCIATORS					
House Type					
No. Drops	Edwards	No. 91 White	Ansonia	P & W	P & W
Drop	81 Dixie	Enam.	301 to 309	"Competition"	"Automatic" Guarantee
2	\$10.00	\$13.20			
3	11.75	15.00	\$10.00		
4	13.25	16.75	11.00	\$13.40	\$16.60
6	16.75	19.75	15.00	16.75	20.00
8	19.75	23.10	17.00	20.00	25.20
10	23.00	26.50	19.50	23.40	30.00
12	26.50	29.75	22.70	28.25	
14			25.25		
16			28.00	34.75	
Ex. Drops ea.	2.25	3.00			
(All other Annunciators—Sell at List less 10%)					

ADAPTORS—REDUCERS

For Sockets					
	Bryant	Benjamin	Hubbell	Weber	Ea.
	No.	No.	No.	No.	
Medium to Candelabra.....	392			392	\$.25
Candelabra to Miniature.....	391				.20
Mogul to Medium.....	421	98		292	.50
T. H. to Edison.....	9357				.15
Parallel Blades to Medium.....		1006			.30
Porcelain Blades to Medium.....	KF		5424		.30
Composition Blades to Medium.....	KL		5807		.50

SOCKET EXTENSIONS

Benjamin No. 91 Socket Extension—Ea.....	\$.40
No. 119 Socket Extension for New Type A Mazda Lamps—Ea.....	.15

ATTACHMENTS FOR PULL SOCKETS

Hubbell No. 5828-5829—Ea.....	\$.40
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ADJUSTERS

For Cords			Price
Universal Cord Adjuster Standard No. 1417 3/4" Long.....			\$.10
" " " Factory No. 1418 5/8" Long.....			.20
" " " Reinforced No. 1419 5/8" Long.....			.22
Ball Type No. 1403 & 5 for Type C Cord.....			.08
No. 4634 & 5 for Reinforced Cord.....			.10

ACORNS

Hubbell No. 5919 Acorn Adjustable for Linen Cord.....	\$.10
" No. 6982 " Standard for Pull Sockets.....	.10
" No. 7004 " Candelabra Detachable.....	.10
" No. 7015 or Bryant 750 Luminous Acorn.....	.30

BOXES, SWITCH

STANDARD SWITCH BOXES

Description	Depth	Gem Nos. or Similar	Price Each
			Black Galvd.
For Loom Without Clamps.....	2 & 2 1/2"	A-C-D-E & S	\$.20 .22
" " With 2 Loom Clamps.....	2 1/2"	F	.15 .17
For Metallic Cable with Clamps..	2 & 2 1/2"	X & XS	.20 .23
" " " " " " " " " " " "	3"	Y	.34 .37
For Rigid Conduit with't Clamps	2-2 1/2-2 3/4"	B-BM & BS	.20 .22
" " " " " " " " " " " "	1 1/2"	R	.22 .25
" " " " " " " " " " " "	3 1/2"	BD	.34 .37
Spacers—For Spacer for any box deduct from box price			.04 .05

BRACKET SWITCH BOXES

Gem or Similar			
For Loom, Lath Supports—No Clps.	2 1/4"	FB	Black Galvd. \$.25 \$.30
For Loom, Lath Supports—with Clps.	2 1/4"	FCB	.28 .33
For Metallic Cable, Lath Supports with Clamps.....	2 & 2 1/4"	XB & XSB	.34 .39
For Rigid Conduit, Lath Supports No Clamps.....	2 & 2 1/4"	BB & BSB	.30 .35

LOCKTITE SWITCH BOXES

Gem or Similar				
For Loom with Mtg. Ears without Clamps.....	2 1/4"	FT	\$.24	\$.29
For Loom with Mtg. Ears & Clps.	2 1/4"	FCT	.27	.32
For Metallic Cable, Mtg. Ears & Clamps.....	2 & 2 1/4"	XT-XCT-XST	.33	.38
For Rigid Conduit, Mtg. Ears without Clamps.....	2 & 2 1/4"	BT-BST	.29	.34

SECTIONAL SWITCH BOXES

Union or Similar				
For Loom or Rigid Conduit 1 1/2" Deep No. 170.....		Black Galvd.	\$.24	\$.27
For Rigid Conduit 2 1/2" Deep—2 Gang No. 160.....		Spacers	.87	.95
			.37	.40

SOLID DRAWN SWITCH BOXES

Union or Similar				
Solid Drawn for Loom 2 1/4" Deep Type SS Black....		Single	\$.16	2 Gang \$.31
" " " Rigid Conduit No. 180-181-187-Galv..		3 Gang	.26	\$.46
" " " with Lath Support, 181-BB-GALV.....			.26	

TANDEM SWITCH BOXES

Black						
Loom, Cable, Conduit	2 Gang	3 Gang	4 Gang	2 Gang	3 Gang	4 Gang
Tandem Boxes 1 1/2" & 2" Deep	\$.68	\$ 1.10	\$ 1.63	\$.82	\$ 1.24	\$ 1.90
" " 2 1/2" & 2 3/4" " "	.81	1.23	1.90	.95	1.37	2.18

DOOR SWITCH BOXES

Black		
Union No. DS-1-3 & 5 Appleton 7010-12-14 without Clamps	Galvd.	\$.52
" No. DS-2-4 & 6 " 7011-13-15 with Clamps...		.62

LAUNDRY BOX

Single		
Gem or Appleton—with Receptacle.....	Double	\$ 1.00 \$ 1.40

SWITCH BOX SUPPORTS

Each	
Any Make.....	\$.20
For Concrete Boxes See Page PL-5.	
For Solid Gang Boxes See Page PL-5.	

BOXES & COVERS, OUTLET

BOXES, OCTAGON & SQUARE

Covers Priced Separately									
Univ. No.	Size	Depth	Knockouts	Bottom	Side	Price Each	Black	Galvd.	
24151	3 1/4" Oct. Deep	1 1/2"	1/2" KO	1-1/2"	4-1/2"	\$.14	\$.16		
24151	3 1/4" " " "	1 1/2"	1/2" KO	1-1/2"	4-1/2"	.16	.18		
24155	3 1/4" " " "	1 1/2"	1/2" KO	1-1/2"	4-1/2"	.16	.18		
26121	3 1/4" Round Shallow	1 1/2"	1/2" KO	2-1/2"	8-1/2"	.15	.17		
26125	3 1/4" " " " No Ears	1 1/2"	1/2" KO	2-1/2"	8-1/2"	.14	.16		
26126	3 1/4" " " " " " "	1 1/2"	1/2" KO	2-1/2"	8-1/2"	.13	.15		
36113	3 1/4" " " " " " "	1 1/2"	1/2" KO	2-1/2"	8-1/2"	.14	.16		
36114	3 1/4" " " " " " "	1 1/2"	1/2" KO	2-1/2"	8-1/2"	.12	.14		
36115	3 1/4" " " " " " "	1 1/2"	1/2" KO	2-1/2"	8-1/2"	.14	.16		
36116	3 1/4" " " " " " "	1 1/2"	1/2" KO	2-1/2"	8-1/2"	.12	.14		
51151	4" Sq. Deep	1 1/2"	1/2" KO	5-1/2"	8-1/2"	.22	.25		
52151	4" " " " " " "	1 1/2"	1/2" KO	5-1/2"	10-1/2"	.20	.24		
52151	4" Oct. " " " " " "	1 1/2"	1/2" KO	5-1/2"	10-1/2"	.22	.26		
54151	4" " " " " " "	1 1/2"	1/2" KO	5-1/2"	4-1/2"	.17	.20		
54151	4" " " " " " "	1 1/2"	1/2" KO	5-1/2"	5-1/2"	.20	.23		
54155	4" " " " " " "	1 1/2"	1/2" KO	5-1/2"	8-1/2"	.25	.28		
54171	4" " " " " " "	2 1/2"	1/2" KO	5-1/2"	4-1/2"	.30	.35		
56111	4" Round Shallow	1 1/2"	1/2" KO	5-1/2"	8-1/2"	.13	.15		
56111	4" " " " " " "	1 1/2"	1/2" KO	5-1/2"	8-1/2"	.16	.20		
56112	4" " " " " " "	1 1/2"	1/2" KO	5-1/2"	8-1/2"	.10	.12		
56115	4" " " " " " "	1 1/2"	1/2" KO	5-1/2"	8-1/2"	.14	.16		
56116	4" " " " " " "	1 1/2"	1/2" KO	5-1/2"	8-1/2"	.11	.13		
56121	4" " " " " " "	1 1/2"	1/2" KO	5-1/2"	8-1/2"	.17	.20		
56122	4" " " " " " "	1 1/2"	1/2" KO	5-1/2"	8-1/2"	.13	.16		
56125	4" " " " " " "	1 1/2"	1/2" KO	5-1/2"	8-1/2"	.32	.37		
72151	4-11/16" Sq. Deep	1 1/2"	1/2" KO	5-1/2"	8-1/2"	.55			
72171	4-11/16" " " " " " "	2 1/4"	1/2" KO	5-1/2"	8-1/2"	.65			

ELECTRICAL CONTRACTING

COVERS, ROUND

For 3 1/4" & 4" Octagon & Round Boxes

Universal No.	Size	Description	Price Each Black Galvd.
24C-1	3 $\frac{1}{8}$ "	Flat Closed Cover Blank 3 $\frac{1}{8}$ "	\$.06 \$.08
24C-2	"	Raised 3 $\frac{1}{8}$ " Closed Cover Blank.....	.06 .08
24C-6	"	Flat with 1 $\frac{1}{2}$ " KO.....	.07 .09
24C-7	"	Raised 3 $\frac{1}{8}$ " KO.....	.08 .10
24C-12	"	Raised 3 $\frac{1}{8}$ " Hole, for Cord or Bush..	.08 .10
24C-28	"	Spider Flat for Surf. Mntd. Devices..	.10 .12
24C-31	"	Raised 3 $\frac{1}{8}$ " Opng. for Sign Recep.....	.08 .11
24C-35	"	Flat Opng. 3 $\frac{1}{8}$ " for Spec. Sign Recep..	.23 .25
24C-35 & 36	"	Raised Opng. 3 $\frac{1}{8}$ " for Scrw Sign Recep..	.08 .10
54C-1	4"	Flat Closed Cover.....	.08 .10
54C-2	"	Raised 3 $\frac{1}{8}$ " Closed Center.....	.08 .10
54C-3	"	Raised 3 $\frac{1}{8}$ " Opening 2 $\frac{1}{2}$ ".....	.11 .13
54C-6	"	Flat with 1 $\frac{1}{2}$ " KO.....	.08 .11
54C-7	"	Raised 3 $\frac{1}{8}$ " with 1 $\frac{1}{2}$ " KO.....	.10 .12
54C-12	"	Raised with Opening for Cord.....	.09 .11
54C-28	"	Flat for Surface Mounted Devices....	.10 .12
54C-31	"	Raised for Sign Receptacles.....	.10 .12
54C-35 & 36	"	" " " ".....	.10 .12
1172	3 $\frac{1}{8}$ "	Porc. Round Cov. for 3 $\frac{1}{8}$ " Box with hole\$.20	
1173	4"	Porc. Round Cov. for 4" Box with hole\$.30	

COVERS, SQUARE

For 4" & 4-11/16" Square Boxes

Universa No.	Size	Description	Price Each Black	Galvd.
52C-1	4" Sq.	Flat Closed.	\$.09	\$.12
52C-2	" "	Raised Closed Center.	.12	.14
52C-3	" "	Flat with 2 1/2" Opening.	.12	.18
52C-6	" "	Flat with 1 1/2" KO.	.12	.14
52C-7	" "	Raised with 1 1/2" KO.	.17	.20
52C-12	" "	" " " Hole for Cord.	.14	.16
52C-13	" "	Raised 1 1/2" For Single Flush Devices	.12	.14
52C-14	" "	" " " " " "	.13	.16
52C-15	" "	" " " " " "	.18	.20
52C-16	" "	" " " " " "	.22	.24
52C-17 & 18	4" Sq.	Raised 1 1/2" For Two Flush	.18	.21
52C-19	" "	Raised 1 1/2" For Two Flush	.26	.28
52C-21	" "	Raised 1 1/2" For Two Flush	.28	.30
52C-28	" "	Flat For Surface Mounted.	.18	.20
52C-35 & 36	4" Sq.	Raised for Sign Rectangles.	.17	.20
52C-48	" "	Raised with 2 1/2" Opening.	.13	.14
52C-62	" "	Raised 1 1/2" For Single Flush Devices	.12	.14
72C-1	4-11/16" Sq.	Flat Closed.	..	.30
72C-2	" "	Raised Closed Center.	..	.36
72C-3	" "	Raised 2 1/2" Opening.	..	.40
72C-12	" "	Raised with Hole for Cord.	..	.40
72C-14	" "	Raised 1 1/2" For Single Flush Devices	..	.43
72C-18	" "	Raised 1 1/2" For Two Flush.	..	.55
72C-48	" "	Raised 2 1/2" Opening.	..	.40

For Exposed Work

Universal No.	Description	Price Black	Galvd.
N-8490 to 8493	4" Cover For One Push or Toggle Switch or one Single or Duplex Receptacle.	\$.25	\$.30
N-8493A to 8500	4" Cover For Two Push or Toggle Switches or Two Receptacles or any combination of two devices.	\$.35	\$.40

EXTENSION RINGS

Universal No.	Description	Price Each	
		Black	Galvd.
25151-57151	3 1/4" Octagon Ring-1 1/4" Deep.....	.27	.29
53151-55151	4" Square or Octagon Ring-1 1/4" Deep....	.30	.32
55171	4" Octagon Ring-2 1/4" Deep.....	.48	.54

HANDY OR UTILITY BOXES & COVERS

Univ. No.	Appleton No.	G. E. No.	Description	Black or Galv.	Price
58361	4-CS	58361	Box 4 x 2½ x 1½ Approx. Size		\$.25
	3-OS	3400	" 3½ x 2¼ x 1½ "	"	.30
58151	4-SS	.....	" 4 x 1½ x 1½ "	"	.30
58371	4-SSL	.....	" 4 x 2½ x 2½ "	"	.30
	4-SSLD	.....	" 4 x 2½ x 2½ "	"	.55
58C1	2540	34R1	Cover Flat Steel Closed		.13
	2541 to 4	.....	" " Porcelain 1-2-3-4 Hole		.18
58C11	2540 to 53	.....	" " Steel with ¾ or ⅝ Nip.		.30
58C28	2556	.....	" " For Snap Switches		.20
58C36	2557-8	.....	" " Sign Receptacles		.20
58R3	2537	34R3	Cover For Push Button Switches		.25
58R5	2539	34R5	" " Single Receptacles		.25
58R7	2510	34R7	" " Duplex Receptacles		.25
.....	2594	34R14-15	" " Toggle or Tumbler Switch		.25

CONCRETE BOXES WITH COVERS

Depth		1½"	2"	2½"	3"	3½"	4"	5"	6"
Complete	with Plate & Stud	\$.35	\$.40	\$.40	\$.45	\$.50	\$.55	\$.60	\$.70
"	with "Jaws"	.30	.35	.35	.40	.45	.50	.55	.65

SOLID GANG BOXES & COVERS

	2	3	4	5	6	7	8
Galvd. Only	Gang	Gang	Gang	Gang	Gang	Gang	Gang
Box Price...	\$1.80	\$1.20	\$1.65	\$2.10	\$4.00	\$6.35	\$6.50
Cover "	.40	.60	.80	1.00	2.00	3.35	3.70

June, 1929

BOXES, OUTLET

ARMORED CABLE BOXES

Comparative Numbers								Galvd.
Size	Stud	Clamps	Bush Pl.	Union Chicago	Appleton	Nat. Met. Prod.	Steel City	Price
3/4x1 1/2 Round	Yes	Two	No	.....	.....	2365	.....	\$ .30
3/4x1 1/2 " "	"	"	Two	.....	544L	2355	36151XS	.35
3/4x1 1/2 Oct.	"	"	"	1288XS	.....	.....	24151XS	.35
3/4x2 1/2 Round	Yes	"	No	1286	.....	.....	.....	.20
3/4x2 1/2 " "	No	"	Two	1287XS	532L	.....	36125XS	.30
3/4x2 1/2 Oct.	"	"	"	.....	530L	.....	.....	.30
4x1 1/2 " "	"	"	"	1291XS	.....	2345	54151XS	.40
4x1 1/2 " "	No	"	"	1291X	542L	2348	54151X	.35
Hope								
Boxes No. 2-4-12-14	Straight Electric or Combination Each					.....	.....	\$ .20
G. E.								
Boxed	5200 & 5201	"	"	"	"	.....	.....	.20
Thomas & Betts								
No. 565-66-67-68 Standard Cable Box								.20
No. 553-54-55-56-57 Dead Ground Type								.30

BAR HANGERS FOR OUTLET BOXES

Without Boxes

(With ¾ Fixt. Stud)	Appleton	Austin	G.E.	Hemco	Steel City	Union Chgo.	Price
Straight 18" Bar	SBH	900	6600	20	6000	10	\$.25
Straight 24" Bar	SBHL	900A	6601	24	6000	10A	.35
Shallow 19½ Offset Bar	BHS	905	6602	21	6001	11	.30
Shallow 24" Offset Bar	BHSL						.35
Deep 19½ Offset Bar	BHD	915	6603	22	6002	12	.30
Deep 24" Offset Bar	BHDL						.35
Straight Old Work Bar	BHOW	920	6604	23	6003	13	.20
Universal Box Cleat	CBH	910	6605	24	6005	14	.15
Straight Saddle Bar 18"	XBH	....	....	....	....	....	.20

BAR SETS

Complete with Boxes

For Loom	Size	Ears	Clamps	Bush Plates	Appleton City	Steel City	Price Galvd.
	3 1/2 x 1 1/2 Round	None	None	None	498L	36116B	\$.35
"	" " "	"	Two	"	498LC	36116BC	.40
"	" " "	Yes	None	"	521L	36115B	.40
"	" " "	"	Two	"	521LC	36115BC	.45
Cable	3 1/2 x 1 1/2	None	"	"	"	"	.35
"	3 1/2 x 1 1/2	"	"	Two	532L	"	.40
"	3 1/2 x 1 1/2 Oct.	Yes	"	None	"	"	.45
"	" " "	"	"	Two	539L	"	.50
"	4 x 1 1/2	"	"	None	"	"	.50
"	" " "	"	"	Two	545L	"	.55
Conduit	4 x 1 1/2 Round	None	None	None	BH4C	56112B	.35
"	" " "	Yes	"	"	BH4CL	56111B	.40

BUSHINGS & LOCKNUTS

BUSHINGS & LOCKNUTS

For Rigid Conduit

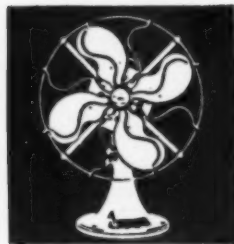
		$\frac{3}{4}$ "	$\frac{3}{4}$ "	1"	$1\frac{1}{4}$ "
Locknuts—Each.....		\$.01	\$.01 $\frac{1}{2}$	\$.02 $\frac{1}{2}$	\$.06
Bushings—Each.....		.02	.03	.06	.10
	$1\frac{1}{2}$ "	2"	2 $\frac{1}{2}$ "	3"	4"
Locknuts—Each.....	\$.10	\$.14	\$.24	\$.38	\$.68
Bushings—Each.....	.13	.24	.35	.65	1.00
					1.65

PORCELAIN CLAMP BUSHINGS "Federal" or Equivalent

No.	K. O.	Inside Size	Outside Size	Wire Size	Bushing Each	Extra Ring Each
A-1	1 3/4"	1 3/4"	1 3/4"	No. 10	\$.10	\$.04
A-2	1 3/4"	1 3/4"	1 3/4"	No. 10	.11	.04
A-3	1 3/4"	1 3/4"	1 3/4"	No. 8	.11	.04
A-4	1 3/4"	1 3/4"	1 3/4"	No. 3	.12	.05
A-5	1 3/4"	1 3/4"	1 3/4"	No. 00	.16	.07
A-6	2"	1 3/4"	1 3/4"	450 CM	.23	.10
B-1	1 3/4"	1 3/4"	1 3/4"	1 Mill. CM	.46	.12
K-1	1 3/4"	1 3/4"	1 3/4"	No. 10	.21	.04
K-2	1 3/4"	1 3/4"	1 3/4"	No. 10	.32	.04
				No. 8	.37	.05

PORCELAIN NO CLAMP BUSHINGS
Multi- With Spring Clip, Not Threaded

Catalog No., Multi.....	90A	90B	91	92A	92B
Size of Hole.....	$\frac{9}{16}$	$\frac{13}{16}$	$\frac{13}{16}$	$\frac{11}{16}$	$\frac{17}{16}$
To Fit Hole.....	$\frac{9}{16}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{13}{16}$	$\frac{13}{16}$
Price.....	\$.05	\$.05	\$.05	\$.06	\$.06



Immediate Shipment

all Summer from these Distributors

- | | | | |
|---|---|---|---|
| Akron, Ohio
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| Atlanta, Ga.
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Electric Appliance Co.
Interstate Electric Co. | Salem, Mass.
Sager Electrical Supply Co. |
| Baltimore, Md.
Lee Electric Co. | Holyoke, Mass.
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Crannell, Nugent & Kranzer, Inc.
Parr Electric Co., Inc. | San Antonio, Texas
Southern Equipment Co. |
| Beaumont, Texas
Neches Electric Co. | Houston, Texas
Roberts Empire Electric Co. | Norfolk, Va.
Woodhouse Electric Co., Inc. | San Diego, Calif.
San Diego Standard Elec. Corp. |
| Binghamton, N. Y.
Bunnell-Stevens Co., Inc.
Southern N. Y. Elec. Supply Corp. | Indianapolis, Ind.
Meier Electric & Machine Co. | Oakland, Calif.
The Electric Corporation | San Francisco, Calif.
Baker, Hamilton & Pacific Co.
The Electric Corporation |
| Birmingham, Ala.
Interstate Elec. Co. of Ala. | Jacksonville, Fla.
Perdue Office Furniture Co. | Oklahoma City, Okla.
Cook Electric Supply Co. | Savannah, Ga.
American Specialty & Import Co. |
| Boston, Mass.
Sager Electrical Supply Co.
George H. Wahn Co. | Jersey City, N. J.
Parr Electric Co., Inc. | Omaha, Nebr.
Granden Electric Co.
Lee-Kountze Hardware Co. | Seattle, Wash.
The Electric Corporation |
| Brockton, Mass.
Sager Electrical Supply Co. | Joplin, Mo.
Glasco Electric Co. | Orlando, Fla.
Robertson Supply Co., Inc. | Shreveport, La.
Interstate Elec. Co. of Shreveport, Inc. |
| Brooklyn, N. Y.
Parr Electric Co., Inc. | Kansas City, Mo.
Missouri Valley Electric Co. | Peoria, Ill.
Electric Appliance Co. | Sioux Falls, S. D.
Tri-State Electric Co. |
| Buffalo, N. Y.
H. I. Sackett Electric Co. | La Crosse, Wis.
W. A. Roosevelt Co. | Philadelphia, Pa.
Elliott-Lewis Electrical Co. | South Bend, Ind.
Electric Appliance Co. |
| Cambridge, Mass.
Sager Electrical Supply Co. | Little Rock, Ark.
Treadway Electric Co. | Phoenix, Ariz.
Arizona Hardware Supply Co. | Spokane, Wash.
Marshall-Wells Co. |
| Canton, Ohio
The Electric Sales Co. | Los Angeles, Calif.
California Hardware Co.
The Electric Corporation | Pittsburgh, Pa.
W. T. McCullough Electric Co.
Robbins Electric Co. | Springfield, Mass.
Hamden Electric Supply Co.
Sager Electrical Supply Co. |
| Chattanooga, Tenn.
Motor Supply Co. | Louisville, Ky.
Peaslee-Gaulbert Corporation, Inc. | Portland, Maine
Frank M. Brown Co. | Syracuse, N. Y.
A. M. Little Co. |
| Chicago, Ill.
Electric Appliance Co.
Revere Electric Co.
Steiner Electric Co. | Lowell, Mass.
Frank P. McCartin Co. | Portland, Ore.
The Electric Corporation
Marshall-Wells Co. | Toledo, Ohio
The Toledo Electric Sales Co. |
| Cincinnati, Ohio
The F. D. Lawrence Electric Co. | Lynn, Mass.
Sager Electrical Supply Co. | | Tucson, Ariz.
Albert Steinfeld & Co. |
| Cleveland, Ohio
The Allen Electric Co.
Davis, Hunt, Collister Co.
Milner Electric Co. | Manchester, N. H.
Granite State Elec. Supply Co. | | Tulsa, Okla.
Missouri Valley Electric Co. |
| Columbus, Ga.
Butler Brothers, Inc. | | | Waco, Texas
Waco Electrical Supply Co. |
| Columbus, Ohio
Smith Bros. Hardware Co. | | | Washington, D. C.
Doubleday-Hill Electric Co. |
| Dallas, Texas
The Electric Specialty Co. | | | Wheeling, W. Va.
The Front Co. |
| Davenport, Iowa
Republic Electric Co. | | | Wichita, Kan.
American Electric Co. |
| Denver, Colo.
The New England Electric Co. | | | Wichita Falls, Texas
Nunn Electric Co. |
| Des Moines, Iowa
Brown-Camp Hardware Co.
Electric Contractors Supply Co. | | | Wilkes-Barre, Pa.
Bunnell-Stevens Co., Inc. |
| Detroit, Mich.
McNaughton-McKay Electric Co.
Miller-Seldon Electric Co. | | | Winston-Salem, N. C.
Lambeth Electric Supply Co. |
| Duluth, Minn.
Marshall-Wells Co. | | | Worcester, Mass.
Sager Electrical Supply Co. |
| | | | Youngstown, Ohio
The Hood Electric Co. |

EMERSON FANS

with the **5-Year Guarantee**

Emerson distributors are prepared to ship fans now and all summer long on a moment's notice. Large warehouse stocks are maintained at convenient points so that your distributor can replenish his supply quickly. Call on him regularly and often. Keep up your fan stocks all summer long.

THE EMERSON ELECTRIC MFG. CO.
2018 Washington Ave., St. Louis, Mo.
806 W. Washington Blvd., Chicago, Ill.
50 Church Street, New York City

When you need fans—you want them quick

You Sell Electrical Installations Not Only **WIRE!**

The thing you sell your customer is a complete electrical installation. Your object in assembling this installation is to sell it at a profit. You are interested therefore, in all material that goes into the job.

Don't consider wire only, install a complete installation that you can sell at a profit. Choose the parts and materials that, when every feature is considered, will make a reputation and show a profit for you.

Quality wire, made by a reputable manufacturer, wire time-tried and tested to give profitable service after the job is completed, that's the wire to choose.

When leading contractors of the country use

American Steel and Wire Company Rubber Covered Electrical Wires

in the nation's largest and most prominent buildings, that is the basis of profit in their choice.

Any of our sales offices will assist with electrical wire problems whenever necessary. Our Electrical Wires and Cables Handbook will be sent free on request.

Consider
the Wire—
*the Life of the
Job!*

AMERICAN STEEL & WIRE COMPANY

Subsidiary of United States Steel Corporation

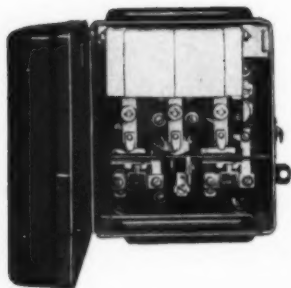
SALES OFFICES: CHICAGO NEW YORK BOSTON CLEVELAND WORCESTER PHILADELPHIA PITTSBURGH BUFFALO DETROIT CINCINNATI BALTIMORE
WILKES-BARRE ST. LOUIS KANSAS CITY MINNEAPOLIS-ST. PAUL OKLAHOMA CITY BIRMINGHAM ATLANTA MEMPHIS DALLAS DENVER SALT LAKE CITY
U. S. STEEL PRODUCTS COMPANY: SAN FRANCISCO, LOS ANGELES, PORTLAND, SEATTLE.
Export Representatives: UNITED STATES STEEL PRODUCTS CO., 30 Church St., NEW YORK, N. Y.

Class 8532

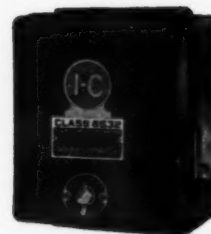
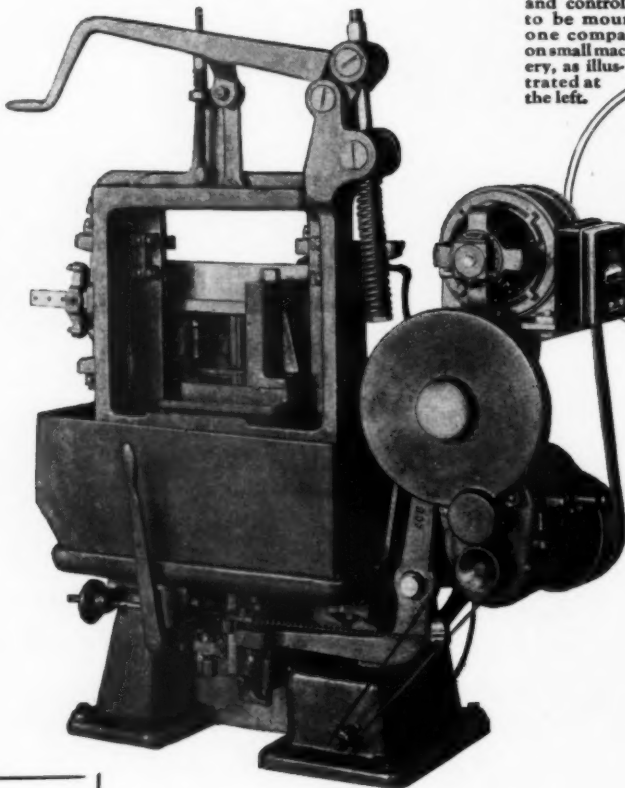
Here is shown Class 8532, Type B, identical with type A, except that it has no push-button station on its cabinet. Suitable for either two-wire or three-wire control. Can be operated from a separately mounted push-button, or by automatic devices such as float switches, pressure regulators, thermostats, etc.



This is class 8532, Type A, A.C., across-the-line automatic starter for use with polyphase and single phase motors. The push-button station is mounted in the cover of the cabinet—providing not only an economical starter and reducing the cost of wiring, but also permitting the starter and control station to be mounted as one compact unit on small machinery, as illustrated at the left.



Class 8532 is shown here open. It is built in two parts—the enclosing cabinet of heavy-gauge sheet steel, with cover hinged at the side and provided with latch for padlocking—and the porcelain mechanism panel.



This is Class 8532, Type C, identical with Types A and B, except that it has a two-way, three-point, rotatory switch, mounted in the cover. Especially adapted for use with automatic devices such as pressure regulators, float switches, thermostats, etc. Its three-point switch permits either automatic or hand control.

Square D Makes a COMPLETE Line of Electrical Control Equipment

At the Switch and Panelboard Division, Detroit

Industrial Safety Switches
Meter Service Switches
SQUARE-Duct

Panelboards for Both Lighting and Power

Fuse Cabinets
Outdoor Meter Boxes

At the Industrial Controller Division, Milwaukee

Automatic Starters
Compensators, Both Automatic and Hand-Operated
Speed Regulators
Motor Circuit Switches
Magnetic Contactors
Pressure Switches
Disconnect Switches
Float Switches

At the Porcelain Division, Peru, Indiana

Porcelain Insulators
Special Porcelain Products

BRANCH OFFICES

Boston
New York
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Buffalo
Pittsburgh
Grand Rapids
Cleveland
Cincinnati
Chicago
Milwaukee
Minneapolis

Indianapolis
St. Louis
Kansas City
Dallas
Los Angeles
San Francisco
Portland

Remember this number!

It designates an automatic across-the-line starter designed for a wide variety of industries which require the safety, convenience and economy of remote motor control.

Safety, economy and convenience of operation are the outstanding advantages of all remote motor control . . . and these are provided in the greatest degree by the Square D Class 8532 A.C. automatic, *across-the-line* starter. Its contactor magnet provides low voltage protection. Its time element thermal relay protects against overloads or phase failure. Thus machines are protected against burn-outs or injuries from overload . . . and operators are safeguarded. The cost of equipment maintenance is reduced, uninterrupted production is assured, and time losses due to breakdowns are kept at a minimum. Moreover, Class 8532 is good insurance against the power loss of machines running idle, since an operator will push a stop button when he would not take the trouble to shut off a hand-operated starter or switch.

This unfailingly efficient automatic starter provides push button control

and allows the push button starter to be mounted on the operated machine or at any point convenient to the operator. The starter itself may be mounted close to the motor, or where it will take up the least valuable space.

Greatest flexibility is assured by the fact Class 8532 is made in *three* types, adaptable to any operating condition that may arise.

Wherever there are motors rated up to 5 h. p. at 220 V., or 7½ h. p. at 440 V., to be controlled, this *across-the-line* starter can be installed profitably. Its low cost permits its use in preference to the ordinary switch.

Complete information regarding Class 8532 and every other item of the Square D line is always available for industrial plants, public utilities companies, contractors, jobbers . . . at either of the three Square D factories or at any of the 23 branch offices.

SQUARE D COMPANY, DETROIT, U. S. A.

FACTORIES AT: DETROIT, MICH., PERU, IND., AND MILWAUKEE, WIS.
SQUARE D COMPANY, LTD., CANADA, WALKERVILLE, ONTARIO
BRANCH OFFICES: Toronto, Montreal

SQUARE D

ELECTRICAL



EQUIPMENT

Boxes, Floor

Porcelain without Locknut.....	$\frac{3}{8}$ "	$\frac{1}{2}$ "
" " " "	\$.05 Each	\$.06 Each
" " " "	.06 Each	.07 Each
Black Composition.....	$\frac{3}{8}$ "	$\frac{1}{2}$ "
For Sockets.....	\$.01	\$.06
		$\frac{3}{8}$ "
		\$.05

NON-ADJUSTABLE TYPE

"Full- Steel" City Co.	"Lat- man" robe" Fullman Mfg. Co.	Rus- sell & Stoll	Description	Price
477	110	2590	Comp Out. with Std. Rec. & Bell Nozzle	\$3.90
490	100	2590	" " Less Std. Rec. with Stem Nozzle	3.50
490	100	2590	Comp. Out. Less Std. Rec. less Nozzle	2.45
491	...	...	Comp. Out. with 20A. Polarz. Rec. & Bell Noz.	4.90
499	300	...	Midjet Out. with 10A. Recept. No Nozzle	2.45
495	...	...	Square Out. Less Recept. with Bell Nozzle	4.35
496	...	...	Square Out. With 15 Amp. Rec. & Bell Nozzle	5.40
497	...	...	Sq. Out. With 25 A. Rec. & Large Bell Nozzle	8.60

400	120	2502	Complete-Shallow Box—Less Receptacle	\$4.35
400	Complete-Deep Box—Less Receptacle	5.25
401	130	Complete-Shallow Box With Receptacle	5.40
401	Complete-Deep Box With Receptacle	6.30
420	Complete Large Size Box Without Receptacle	4.90
421	Complete Large Size Box With Receptacle	6.00

Without Receptacle

441	251	2511	Single Gang with ½" Cover Plate.....	\$ 5.40
442	252	2512	Two " " " "	10.80
443	253	2513	Three " " " "	16.20
444	254	2514	Four " " " "	21.60
445		2515	Five " " " "	27.00
Extra			For 2" Cover Plate, Per Gang.....	\$.65
Extra			For Special Receptacles Latrobe No. T-208, Each Receptacle..	1.00

Thomas & Betts

No. 100	Complete with Receipts	\$4.00
No. 200	" with Receipts	4.00
No. 1200	Complete without Receipts	2.70
No. 1100	Complete with Receipts	9.00
No. 8000	Utility Outfit with Receipts	.85

TYPE "A" SURFACE CUTOUT BOXES

Width Short side	Length Long side	3" Deep	4" Deep	6" Deep
4 1/4	5	50
4 1/2	9	50
4 3/4	9	55
4 1/2	3 1/2"	65
6	6	55	\$.65	\$1.20
6	8	65	.75	1.45
6	9	65	.75	1.80
6	10	70	.85
6	12	75	.90	1.90
6	15	85	1.00
8	8	70	.85	1.70
8	10	85	.95	2.00
8	12	90	1.00	2.25
8	15	1.00	1.10
8	18	1.20	1.35
9	9	70	1.00	2.30
9	12	85	2.15	2.60
10	10	90	1.05	2.35
10	12	1.00	1.10	2.60
10	15	1.15	1.35	3.10
10	18	1.35	1.60	3.60
12	12	2.25	1.35	3.00
12	15	2.40	1.65	3.50
12	18	1.70	4.15
12	24	4.85	5.10
12	30	10.75	12.40
15	15	3.55	3.55	4.15
15	18	4.15	4.75
15	24	5.70	6.60
15	30	13.35	15.20
18	18	4.80	8.40
18	21	10.75	12.55
18	24	12.20	14.05
18	30	15.20	16.65
18	36	17.85	19.50
18	40	19.50	21.33
24	24	15.10	17.45
24	30	19.20	20.80
24	36	22.50	24.05
24	40	24.30	26.55
24	44	41.30	45.00
30	30	27.10	29.60
30	36	41.50	47.60
30	42	48.80	53.00
30	48	56.70	61.20

For Galvanized Boxes Add 20% to above prices.

Ansonia

Name	No.	Description	2½" Bell or Buzzer	3" Bell	4" Bell	Cow or Sleigh
No. 656	656	Sgle. Coil Non-Adjust.	\$.60			
Ansonia	652	Dble. Coil Round Base	.70	.....	.....	.....
Wizard	659	Dble. Coil Non-Adjust.	.75			
Eureka	641	Dble. Coil Adjust. B.	1.00	\$1.20	\$1.60	\$1.70
Acme	631	Dble. Coil Adjust. A.	1.35	1.50	1.85	2.25
Eureka	621	Dble. Coil Wood Bx. B	1.60	1.75	2.00	2.25
Wizard	660	Comb. Bell & Buzzer	1.20	1.30		
"	666	Watch Case Buzzer...	1.25			
"	655	N. P. Square Buzzer...	2.00	.....	.....	.....
Monitor	658	Monitor Round Bell..		1.80	.....	.....
"	661	" " " " " "		1.80	.....	.....

Name	No.	Size	Description	Price Each
Dixie	720	2½"	Two Coil Non-Adjustable Bell.....	\$.75
"	725	"	" " Buzzer.....	.75
Nubel	735	2¾"	" " " Gray Enameled Bell.....	.60
"	736	"	" " " Buzzer.....	.60
Combel	737	2¾"	" " " " Bell & Buzz.....	1.15
Tubell	738	"	" " " " " Two Bells.....	1.25
Cadet	710	2½"	Two Adjustable Bell.....	1.00
"	715	"	" " Buzzer.....	1.00
"	712	3"	" " Bell.....	1.20
"	714	4"	" " ".....	1.60
"	X	"	" Cow or Sleigh.....	1.70
Buz-A-Bell	730	2½"	" Combination Bell & Buzz.....	1.20
Monitor	156	3"	Monitor Bell Nickled Gong.....	1.80
Bronx	750	1¾"	Nickled Watch Case Buzzer.....	1.25

No. 13 Bells

Size	Price
1"	\$2.00
1 1/4"	1.80
1 1/2"	1.60
2"	1.40
2 1/2"	2.00
3"	2.20
3 1/2"	2.40
4"	2.60
6"	9.50
Cow or Sleigh	2.25

Size	No.	Price
1½" x 1½"	No. 0.....	\$1.85
2½" x 1½"	No. 1.....	1.50
2½" x 1½"	No. 2.....	1.75
3" x 2"	No. 3.....	2.00
3½" x 2½"	No. 4.....	2.20

	Price
Small 2½" Iron Box Bell Adjustable Dble. Coil.....	\$.75
Fancy Gong Cow or Sleigh Bell Adjustable Dble. Coil.....	1.75
Small 1½" Nickled Midget Bell.....	2.00
6" Large Iron Box Bell — 5 Ohms.....	7.50
8" " " " — 5 Ohms.....	12.00

Standard 2 1/4" Iron Box Buzzer Adjust. Dble. Coil.....	Price \$.75
Nickel Watch Case Buzzer.....	1.00
" Midget Buzzer—1 1/2" x 1 1/4".....	1.90
Flush Buzzer—2 1/4" x 1 1/4".....	3.30
Oak Wood Box Buzzer—3" x 4 1/4".....	1.90

		2½"	3"	4"	5"	6"
Regular	Gong.....	\$2.00	\$2.10	\$2.40	\$ 6.40
Dinner	"		6.00	8.25	\$11.20	13.20
Cow	"		6.30	9.60	13.65	15.60

Name	No.	Description	2½ Bell or Buzz	3" Bell	4" Bell	Cow or Sigh
Eclipse	200-1-2	Non-Adjust. Class C.....	\$.75	\$.85		
PRXXX	210 to 18	Adjustable Class B.....	1.00	1.20	\$1.60	\$1.70
Marlo	220 to 28	Adjustable Class A.....	1.35	1.50	1.85	2.25
"	231 to 60	Transformer Type.....	6.15	6.35	6.85	8.60
Eclipse	208	Combina. Bell & Buzzer...	1.25
Monitor	238	Monitor Bell N. P.....	1.80
P R	240-261	Watch Case Buzz. Adjust.....	1.25
P R	265-286	" " Non-Adj.....	1.00

No. 31 & 32	2½" Bell	Buzzer	3" Bell	4" Bell
Price Each.....	\$.65	\$.60	\$1.00	\$1.45

Any Make

	2½"	3"	4"	5"	6"	8"	10"	12"
Class A....	\$5.75	\$6.00	\$7.25	\$9.40	\$10.60	\$16.00	\$25.00	\$31.50
" B....	.....	5.60	6.65	7.85	8.95	14.45	21.40	27.60

BELL PUSH BUTTONS, TREADS, ETC.

PUSH BUTTONS, ETC.

Ansonia

Round Stamped		Price
D-33	1 1/2" Diameter	\$.80
506	1 1/2" Diameter Fixed Back	.25
507	With Card Holder	.40
513	1 1/2" Diam. Loose Back	.75
515	1 1/2" " " "	.35
527	2 1/4" " Fixed Back	.45
579	1 3/4" " 562 Center	.80

ELECTRICAL CONTRACTING

PL-8

Brackets

HOUSE BRACKETS WITHOUT INSULATORS National Elec. Products

Light Type			Heavy Type			Corner Type		
No.	Points	Price Each	No.	Points	Price Each	No.	Points	Price Each
108-10	1	\$.25	109-10	1	\$.40	111-10	1	\$.30
108-26	2	.60	123-6-7	1	.35	.....	.....	.....
108-29	2	.65	109-26	2	.80	.....	.....	.....
108-36	3	.95	109-29	2	.85	111-29	2	.60
			109-36	3	1.20	111-36	3	.85

HOUSE RACKS WITH INSULATORS National Elec. Products

Light Type			Heavy Type		
No.	Points	Price Each	No.	Points	Price Each
104-10	1	\$.40	101-24	2	95¢
104-26	2	1.15	101-28	3	1.70
104-33	3	1.00	101-34	3	1.80
104-36	3	1.25	101-38	4	2.35
			101-44	4	2.20
104-53	5	1.65	101-54	5	2.65
104	Insulator Only	.10	101	Insulator Only	.20

WIREHOLDER ACCESSORIES National Elec. Products

No. 5000 Corner Chair....	\$.13	No. 5040 Break Arm Strap....	\$.14
No. 5020 Insulator.....	.15	No. 5051 " " Bolt....	.20
No. 5021 U Bolts & Nuts..	.10	No. 5052 T Head Screw.....	.03

SINGLE POINT WIREHOLDERS National Elec. Products

No. 5211.....	\$.25	No. 5311.....	\$.20	No. 5411.....	\$.35	No. 5511.....	\$.24
5214.....	.35	5314.....	.30	5414.....	.40	5513.....	.30
5215.....	.45	5315.....	.35	5415.....	.50	5515.....	.35

WIREHOLDERS WITH INSULATORS National Elec. Products

For One Wire		For Two Wires		For Three Wires	
No.	Each	No.	Each	No.	Each
No. 5011.....	\$.30	No. 5002.....	\$.60	No. 5003.....	\$.90
No. 5001.....	.25	No. 5012.....	.60	No. 5023.....	.85

WIREHOLDERS WITH INSULATORS National Elec. Products

Light Type			Heavy Type		
No.	Points	Length	No.	Points	Length
105-1X	1	6"	106-1	1	6"
105-1	1	6"	106-10	1	6"
105-10	1	4 1/4"	106-26	2	11 1/4"
105-26	2	10 1/4"	106-29	2	14 1/4"
105-29	2	13 1/4"	106-36	3	17 1/4"
105-34	3	13 1/4"	106-36X	3	17 1/4"
105-36	3	16 1/4"	106	Insulator Only	.20
105	Insulator Only	.18			

B-SUNDRIES, BOLTS, ETC.

CARRIAGE BOLTS Galvanized

		Length					
3"	3 1/2"	4"	4 1/2"	5"	5 1/2"	6"	
1/2" Diam. Each..	\$.05	\$.05	\$.05	\$.06	\$.07	\$.07	\$.08
3/4" " " " "	.08	.09	.09	.10	.10	.11	.12

MACHINE BOLTS WITHOUT WASHERS Galvanized

Diam.		Length					
3"	4"	5"	6"	7"	8"	10"	12"
1/2" Each.....	\$.05	\$.06	\$.07	\$.08	\$.10	\$.12	\$.14
3/4" " " " "	.10	.10	.12	.13	.14	.16	.20
1" " " " "	.10	.10	.12	.13	.14	.16	.20
1 1/4" " " " "	.10	.10	.12	.13	.14	.16	.20
1 1/2" " " " "	.10	.10	.12	.13	.14	.16	.20
1 3/4" " " " "	.10	.10	.12	.13	.14	.16	.20
2" " " " "	.10	.10	.12	.13	.14	.16	.20
2 1/4" " " " "	.10	.10	.12	.13	.14	.16	.20
2 1/2" " " " "	.10	.10	.12	.13	.14	.16	.20
2 3/4" " " " "	.10	.10	.12	.13	.14	.16	.20
3" " " " "	.10	.10	.12	.13	.14	.16	.20

STOVE BOLTS Round or Flat Head

Length		Diameter			
Up to 1"	Long Per Dozen	1/2"	3/4"	1"	1 1/4"
1 1/4" to 1 1/2"	\$.10	\$.10	\$.12	\$.15
1 1/2" to 1 3/4"10	.10	.12	.20
1 3/4" to 2"10	.10	.12	.25
2" to 2 1/4"10	.10	.12	.30
2 1/4" to 2 1/2"10	.10	.12	.35
2 1/2" to 2 3/4"10	.10	.12	.40
2 3/4" to 3"10	.10	.12	.45

TOGGLE BOLTS, STEEL "Paine"

Size—Diameter		2"		3"		3 1/2"		4"		5"		6"	
Long	Price Each	Long	Price Each	Long	Price Each	Long	Price Each	Long	Price Each	Long	Price Each	Long	Price Each
1/2"	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10
3/4"10	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10
1"10	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10
1 1/4"11	.11	.11	.11	.11	.11	.11	.11	.11	.11	.11	.11
1 1/2"12	.12	.12	.12	.12	.12	.12	.12	.12	.12	.12	.12

NOTE: For Brass Toggle Bolts—2 1/2 times above prices.

FIXTURE BLOCKS Round

	4 & 5" Round	6 & 7" Round
1/2" or 3/4" Plain.....	\$.25	\$.30
1/2" or 3/4" Slotted.....	.35	.40
Ceiling Button—P & S Porcelain No. 170—Each.....		\$.12
Switch Bases—See Snap Switches Page PL-19.		

CORDS, FIXTURE, LAMP AND HEATER

SINGLE FIXTURE CORD

Single Lamp Cord		Type	Price Per Foot	No. 18	No. 16	No. 14	No. 12
Single Cotton Covered Cord—Light	F-64		\$.01				
Single Cotton Covered Cord—Heavy	F-32		.01 1/2	.02	.03	.04	.04
Single Artificial Silk Cord—Heavy	F-32		.02	.03	.04	.04	.04

DOUBLE LAMP CORD

Regular Lamp Cord		Type	Price Per Foot	No. 18	No. 16	No. 14	No. 12
Cotton Covered Twisted Pair.....	PO		\$.02 1/2	\$.04	\$.06	\$.08	\$.10
" " Parallel Pair.....	CO		.03 1/2	.05	.08	.08	.10
" " Twisted Parallel Pair.....	PD		.04	.05	.08	.08	.10
Artificial Silk Twisted Pair.....	C		.03 1/2	.05	.08	.08	.10
" " Parallel Pair.....	PO		.04	.05	.08	.08	.10

REINFORCED CORD

Not Asbestos		Type	Price Per Foot	No. 18	No. 16	No. 14	No. 12
Cotton Covered Light Type 1/4"	PS		\$.04	\$.06	\$.08	\$.08	\$.10
" " Heavy " 1/4"	P		.06	.07	.10	.10	.13
Weatherproof Light Type 1/4"	PSWP		.03 1/2	.05 1/2	.08	.08	.10
" " Heavy Type 1/4"	PWP		.04 1/2	.06	.09	.09	.10

HEAVY DUTY PORTABLE CORD "Duracord" or Similar. Extra Reinforced

Type PS Light 2 Cond. Port. Cord..		No. 18	No. 16	No. 14	No. 12	No. 10
" P Heavy 2 " " " "		\$.10	\$.17	\$.21	\$.25	\$.31
" P Heavy 3 " " " "		.14	.18	.26	.33	.41

ALL RUBBER CORD

"Tirex" "Royal" "Super" "Indestructo" or Similar

		Price Per Foot		No. 18	No. 16	No. 14	No. 12	No. 10
SJ Junior 2 Conductor Black.....		\$.09	\$.11					
" " 2 " Green.....		.10	.13					
" " 3 " Black.....		.13	.16					
S Type Heavy 2 Conductor Black..		\$.13	\$.16	\$.23	\$.29	\$.37		
" " 3 " " "		.19	.22	.29	.34	.46		
" " 4 " " "		.20	.25	.35	.45	.59		
" " Sgle. Cond. Black...		.08	.09	.10	.11	.13		

HEATER CORD

Asbestos Covered		Price Per Foot		No. 18	No. 17	No. 16	No. 14	No. 12
Stand. Twisted or Wound Asbest. 1/4"		\$.04	\$.05	\$.06	\$.10	\$.12		
American Beauty Heater Cord.....		.09	.10	.11	.20			
Rockbestos Heater Cord.....		.06	.07	.08	.10	.20		

"Deltabeston" Heater Cord		Price Per Foot		No. 18	No. 17	No. 16	No. 14	No. 12
Type A Asbestos Braid overall.....		\$.10	\$.11	\$.12	\$.18			
" C Cotton Braid overall.....		.08	.09	.10	.11	.15		
" D " " on ea. cond.....		.08	.09	.10	.11	.16		
" E Cotton on ea Cond. & over both.....		.09	.10	.11	.12	.17		

NOTE—For Armored Cords See Page PL-9.
" Extension Cords See Page PL-10.
" Fixture Wire See Pages PL-26 & 27.
" Bell Wire See Page PL-27.

MISCELLANEOUS CORD

Description		Type	Price Per Foot	No. 18	No. 16	No. 14	No. 12	No. 10
x Brewery Cord.....	CB		\$.04	\$.05	\$.07			
x Canvasite Cord.....	CC		.06	.07	.09			
x Deck Cable.....	PWP		.07	.08	.11			
x Packinghouse Cable.....	PKWP		.07	.08	.10			
x Stage & Theatre Cable..	T		.07	.08	.10	\$.13	\$.16	

x Note—These prices are based on less than cost lot trade prices.

CONDUCTING BELL CORD Spun Silk

Number of Conductors		2	3	4	5	8	10	14	18
Price Per Foot.....		\$.08	\$.18	\$.20	\$.21	\$.28	\$.38	\$.68	\$.88

Note—For Armored Lamp Cord See Page PL-9.

ELECTRICAL CONTRACTING

CONDUIT, ELBOWS, COUPLINGS,
BUSHINGS, ETC.

RIGID CONDUIT

	Black Per Foot	Galvd. Per Foot	Cutting & Threading Per Thread	Cutting Only Per Cut
1/2"	.10	.11	.20	.10
3/4"	.13	.14	.25	.10
1"	.18	.20	.25	.10
1 1/4"	.25	.28	.30	.15
1 1/2"	.31	.34	.35	.15
2"	.40	.44	.40	.20
2 1/2"	.63	.70	.50	.25
3"	.83	.90	.60	.30
3 1/2"	1.05	1.15	.70	.30
4"	1.26	1.39	.80	.30

ELBOWS, COUPLINGS, BUSHINGS, LOCKNUTS

Price Each

Size Each	Bends or Elbows Black Galv.	Couplings Black Galv.	Bushings Galv.	Locknut Galv.	Erickson Coupl. Galv.
1/2"	.16 .18	.10 .11	.02 .01	.35	
3/4"	.20 .24	.14 .15	.03 .01 1/2	.50	
1"	.30 .35	.18 .20	.06 .02 1/2	.70	
1 1/4"	.42 .45	.24 .26	.10 .06	1.10	
1 1/2"	.55 .60	.31 .34	.13 .10	1.54	
2"	.86 1.00	.40 .42	.24 .14	2.80	
2 1/2"	1.40 1.60	.58 .62	.35 .24	5.40	
3"	3.75 4.25	.75 .82	.55 .38	8.63	
3 1/2"	8.10 9.25	1.00 1.08	1.00 .50	12.90	
4"	9.35 10.65	1.23 1.32	1.65 .68	17.25	

Also on Page PL-10.

Also on
Page PL-5.Also on
Page PL-15.

FLEXIBLE METALLIC CONDUIT

"Greenfield", "Flexsteel", or Equivalent

	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Single Strip Per Foot...	\$.08	\$.10	\$.12	\$.20	\$.36	\$.40
Double Strip Per Foot...	.10	.12	.14	.23	.40	.45

For Fittings for Metallic Conduit See Page PL-14.

For Non-Metallic Conduit or Loom See Page PL-15.

For Steel Armored Cable & Lead Covered See Next Item.

CABLE, ARMORED & NON-METALLIC
SHEATHEDARMORED CABLE, "BX", "ABC", "FLEXSTEEL", OR
SIMILAR

			Price Per Foot	No. 14	No. 12	No. 10
TWO CONDUCTOR	Solid	Single Strip		\$.06	\$.10	\$.14
THREE CONDUCTOR	Stranded	"				
FOUR CONDUCTOR	Solid	"		.09	.14	.18
ONE CONDUCTOR	Stranded	"				
CONDUCTOR	Solid	"		.18	.21	
CONDUCTOR	Stranded	"		.09	.10	.11
CONDUCTOR	2 Conductor	"		.07	.10	.13
CONDUCTOR	3 Conductor	"		.10	.14	

Double Strip Armored Cable add 30% to above prices.

Anti-Short Fibre Bushings for ABC Cable, Each..... \$.01

LEAD COVERED ARMORED CABLE

			Price Per Foot	No. 14	No. 12	No. 10
Single Conductor Solid Lead Covered				\$.12	\$.15	
" " Stranded " " "						.17
Two Conductor Solid " " "				.23	.30	.38
" " Stranded " " "						
Three " Solid " " "				.30	.39	.48
" " Stranded " " "						

			Price Per Foot	No. 8	No. 6	No. 4
Single Conductor Solid Lead Covered				\$.20	\$.27	\$.33
Two " Solid " " "				.59	.83	1.10
Three " Solid " " "				.70	1.22	1.48

ARMORED LAMP CORD

	Single Strip	Per Foot	No. 18	No. 16	No. 14
Plain Armored Lamp Cord			\$.12	\$.13	\$.17
Reinforced Lamp Cord			.19	.22	.30

Add 30% for Double Strip

June, 1929

NON-METALLIC SHEATHED CABLE
"Romex", "Loomwire", "Wireflex", or similar

	Size	No. 14	No. 12	No. 10
2 Conductor Without Ground Wire		\$.05	\$.07 1/2	\$.10
" " With " " "		.05 1/2	.08	.10 1/2
" " Without " " "		.08	.11	.15
" " With " " "		.08 1/2	.11 1/2	.15 1/2
	Size	No. 8	No. 6	No. 4
2 Conductor Without Ground Wire		\$.15 1/2	\$.21	\$.28
" " With " " "		.16 1/2	.23	.30
" " Without " " "		.22	.30	.39
" " With " " "		.22 1/2	.30 1/2	.40 1/2
Fittings		No. 14	No. 12	No. 10
Straps Each		\$.01	\$.01	\$.01
Clip (Open Wiring) Each		.03	.03	.03
Connectors Threadless Ea.		.07	.07	.07
" Threaded Ea.		.10	.10	.20

CUTOUTS OR FUSE BLOCKS

PLUG CUTOUTS

125 Volts, 30 Amp. Porcelain

Description	Universal No.	Price Standard Open Type	Covered Type
Single Pole—Main Line	62569	\$.25	
Double " " "	62965	.35	\$.50
Triple " " "	62165	.50	.65
Double Pole Single Branch	61935	.35	.55
" " Double " "	62587	.55	1.00
" " Cross " "	8020	.40	
Triple to D. P. Double Branch	62199	.55	1.10
Triple Pole Single Branch	8042	.65	1.10
" " Double " "	62135	.85	1.75

DEAD FRONT PLUG CUTOUTS

With Covers

	Benjamin 30 Amps.	4 Circ.	8 Circ.	12 Circ.	16 Circ.
With Flush Cover 59904-8-12-16	\$1.80	\$3.60	\$5.40	\$7.20	\$8.10
With Overhanging Cover 59804-8-12-16	2.00	4.10	6.00	8.10	

BRYANT

Double Pole Single Branch No. 71935	\$.95	
" Double Branch No. 72587 & 82587	1.45	\$1.55
Triple to Dble. Pole Dbl. Branch No. 72199 & 82199	1.55	1.65

GENERAL ELECTRIC

2 Circuit No. 2436 & 2435 30 Amp. 250 Volt	Without Cover	\$.70	\$1.20
4 " No. 2441 & 2440 " " "	With Cover	.90	1.75

CARTRIDGE CUTOUTS

Porcelain Base, 250-600 Volts

	0-30 Amp.	31-60 Amp.	61-100 Amp.
Single Pole Main Line Enclosed Porcelain	\$.35	\$.60	\$1.20
Double " " "	.50	1.25	2.40
Triple " " "	.70	1.80	3.30
Double Pole Two Wire Single Branch Porcelain	.60	1.50	
" " Double " "	1.15	3.00	
Double Pole Three Wire Double Branch Porcelain	1.30	3.55	
Triple Pole Three Wire Single Branch Porcelain	1.25	2.50	
Triple Pole Three Wire Double Branch Porcelain	2.00	5.05	
Single Pole Main Line	.55	.80	1.75

SLATE BASE

	250 Volt	600 Volt	30 A.	60A.	100A.	200A.	400A.	600A.
Single Pole-Slate Base-250 V.	\$.45	\$.70	\$1.50	\$2.90	\$7.15	\$10.00		
" " 600 V.	.65	1.00	1.90	3.15	8.15	10.60		

NOTE—Cartridge Cutouts are sometimes called Enclosed Cutouts.

C-SUNDRIES

GROUND CLAMPS

	1/2" to 1 1/4"	1 1/2" to 2 3/4"	3"
Standard Adjustable Ground Clamps, any make	\$.10	\$.15	\$.20
Blackburn	No. 3 \$.24	No. 4 \$.28	No. 5 \$.40
Other Types	8 1/2" & 1 1/2"	1" 1 1/4"	1 1/2" 2" 2 1/4" 3"
Chase Shawmut 3661-68	\$.20	\$.25	\$.30
G. V. A Series 5000	.30	.32	.40
G. V. S Series 8000	.10	.15	.16

STRAPS, CLIPS OR CLAMPS

For Pipe, Without Screws

	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/4"	3"
Tinned Straps, 2 Hole	\$.01	\$.01	\$.01	\$.01	\$.01 1/2	\$.02	\$.03	\$.04
Light Steel Straps, 1 Hole	.03	.03	.05	.07	.08	.10	.15	.30
Mall. Iron Straps, 1 Hole	.07	.08	.10	.15	.25	.45	.70	.95
P & S Conduit Clamps	.10	.14	.18	.22	.26			

(See Also Page PL-25)

COLORING & FROSTING LIQUID

	7 ounce Cans	15 ounce Cans	30 ounce Cans	1/2 Pint Bottle	1 Pint Bottle	Quart Bottle
Crescent (McGill)	\$2.60	\$4.20	\$7.25	\$1.20	\$2.30	\$4.60
Cefco					2.30	4.60
Franco						4.60
Clips for Loom					2c Each or 3 for 5c	
Crowfeet	1/2", 3/4", 1"	1 1/4", 1 1/2"	2", 2 1/4"	3"	1/2" \$.10 Each	

CORD & WIRE CONNECTORS

SMALL FIXTURE & WIRE CONNECTORS

Solderless

Insulated Solderless Wire or Fixture Connectors Similar to "Simplex"	
"Wirenuts" "Marr" "No Torch" "Wirelets" "Ideal" Etc.—each	\$.10
Non-Insulated Solderless Wire Connectors—2 Screw—All Metal	.10

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SET SCREW CONNECTORS

Round Brass

Wire Size	No. 12-14	No. 10	No. 8	No. 6	No. 4
Divided Wall—2 Screws.....	\$.10	\$.12	\$.13	\$.14	\$.19
Hole Thru " 4 ".....	.14	.15	.16	.17	.24
" " " 4 ".....		.16	.18	.20	.22
" " " 4 ".....					.25
Wire Size	No. 2	No. 1/0	No. 2/0	No. 3/0	No. 4/0
Divided Wall—2 Screws.....	\$.20				
Hole Thru " 4 ".....	.28	\$.35	\$.42	\$.70	\$.95
" " " 4 ".....	.30	.36			
" " " 4 ".....	.34	.38	.55	.70	.95

DOSSERT SOLDERLESS CONNECTORS

Size of Conductor	Up to No. 4	3 to No. 1	No. 0	No. 2/0	No. 3/0	No. 4/0
2 Way S & Elbows..	\$.65	\$.75	\$.80	\$1.00	\$1.20	\$1.40
Cable Taps.....	1.00	1.10	1.20	1.40	1.75	2.10
3 Way S & Y's.....	1.00	1.10	1.20	1.40	1.75	2.10
Lugs—All Types....	.50	.60	.60	.70	.90	1.10

CORD & MOTOR CONNECTORS

Arrow	No.	Complete Price	Body Only Price	Cap Only Price
Midjet Comp.	8238	\$.60		
" " Arrolite	8239	.65		
Motor Conn.	RP-8221	.65	\$.50	RP \$.10
" " "	RL-8221	.65	.50	RL .20
" " "	RA-8222	.65	.50	RA .15
" " "	RM-8222	.70	.50	RM .25
" " "	TM-8222	.70	.50	TM .25
" " "	RH-8224	.90	.65	RH .30
" " "	RG-8281	.90	.65	RG .30
" " "	8330 to 33	.80		
" " "	8334 to 37	.90		
Bryant				
Motor Conn.	KR-130	.60	130	.45 KR .20
" " "	KG-103	.60	103	.45 KG .20
" " "	KT-130	.55	130	.45 KT .10
Hubbell				
Cord Connector	5894	.60	5574	.45 5896 .20
" " "	6116	.55	6118	.45 5964 .15
" " "	6179	.60	6630	.45 6631 .20
" " "	6180	.55	6630	.45 6181 .15
" " "	5518	.60	5574	.45 5420 .20
" " "	7083	1.30	7084	.85 7056 .60
" " "	7090	1.80	7091	1.10 7092 .80
" " "	6408	1.25	6409	.90 6149 .45
Weber				
Cord Connector	2274	.60	.74	.45 2200 .20
Wirt				
Cord Connector	.56	.55		

NOTE: For Attachment Plugs and other caps—See Pages PL-16 & PL-17.

E-SUNDRIES

EXTENSION CORDS—MADE UP

With Attachment Plug & Socket, but Guards-Lamps & Handles Extra

Length in Feet	With Lamp Cord and Key Socket No. 18	With Reinforced Cord and Key Socket No. 18	With Artificial Silk Cord and Key Socket No. 18	With Artificial Silk Cord and Key Socket No. 16
4 Foot.....	\$.95	\$1.05	\$1.10	\$1.10
6 ".....	1.00	1.15	1.20	1.20
8 ".....	1.05	1.25	1.30	1.30
10 ".....	1.10	1.35	1.40	1.40
12 ".....	1.15	1.45	1.50	1.50
14 ".....	1.20	1.55	1.60	1.60
16 ".....	1.25	1.65	1.70	1.70
18 ".....	1.30	1.75	1.80	1.80
20 ".....	1.35	1.85	1.90	1.90
22 ".....	1.40	1.95	2.00	2.00
24 ".....	1.45	2.05	2.10	2.10

Length in Feet	With All Rubber Cord and Weatherproof Socket	Light No. 18	No. 16	Heavy No. 18	No. 16
4 Foot.....		\$1.25	\$1.40	\$1.45	\$1.55
6 ".....		1.45	1.65	1.75	1.85
8 ".....		1.65	1.90	2.05	2.15
10 ".....		1.85	2.15	2.35	2.45
12 ".....		2.05	2.40	2.65	2.75
14 ".....		2.25	2.65	2.95	3.05
16 ".....		2.45	2.90	3.25	3.35
18 ".....		2.65	3.15	3.55	3.65
20 ".....		2.85	3.40	3.85	3.95
22 ".....		3.05	3.65	4.15	4.25
24 ".....		3.25	3.90	4.45	4.55

ELBOWS & BENDS For Rigid Conduit

Size	1/2"	3/4"	1"	1 1/4"	1 1/2"
Black.....	\$.16	\$.20	\$.30	\$.42	\$.55
Galv.....	.18	.24	.35	.45	.60
Size	2"	2 1/4"	3"	3 1/4"	4"
Black.....	\$.86	\$1.40	\$3.75	\$8.10	\$ 9.35
Galv.....	1.00	1.70	4.25	9.25	10.65

EXPANSION SHIELDS & ANCHORS

Ackerman-Johnson—Dryvin—Star—Diamond—Cinch—Packtite or Similar

Size of Hole	These Prices Do Not Include Screws.	Inside Diameter	Takes Screw No.	Price Each
3/8"	Length In Inches 3/4 to 1 1/4"	1 1/8"	5-6-7	\$.05
1/2"	1 1/4 to 1 3/4"	1 3/8"	5-6-7	.06
5/8"	1 3/4 to 2"	1 7/8"	5-6-7	.08
3/4"	2 to 2 1/4"	2"	8-9-10-11	.06
7/8"	2 1/4 to 2 3/4"	2 1/8"	8-9-10-11	.06
1"	2 3/4 to 3"	2 3/8"	8-9-10-11	.08
1 1/8"	3 to 3 1/4"	2 7/8"	8-9-10-11	.09
1 1/4"	3 1/4 to 3 3/4"	3"	8-9-10-11	.11
1 1/2"	3 3/4 to 4"	3 1/8"	12-13-14	.06
1 3/4"	4 to 4 1/4"	3 3/8"	12-13-14	.09
2"	4 1/4 to 4 3/4"	3 7/8"	12-13-14	.11
2 1/4"	4 3/4 to 5"	4"	12-13-14	.13
2 1/2"	5 to 5 1/4"	4 1/8"	15 to 18	.08
2 3/4"	5 1/4 to 5 3/4"	4 3/8"	15 to 18	.11
3"	5 3/4 to 6"	4 7/8"	15 to 18	.14
3 1/4"	6 to 6 1/4"	5"	15 to 18	.11
3 1/2"	6 1/4 to 6 3/4"	5 1/8"	15 to 18	.11
3 3/4"	6 3/4 to 7"	5 3/8"	15 to 18	.20

LAG SCREW ANCHORS (Diamond or Smaller)

Takes Lag Screw	3/8"	1/2"	5/8"	3/4"	1 1/2"
Price Without Lag Screw..	\$.14	\$.14	\$.17	\$.24	\$.36
Takes Lag Screw	3/8"	1/2"	5/8"	3/4"	1"
Price Without Lag Screw.....	\$.42	\$.62	\$.90	\$1.05	

FUSES

PLUG FUSES

Standard Plug Fuses—Any Make—\$.07 each or 5 for \$.25 (Some Manufacturers put these fuses up 4 in a box, in which case they should be retailed at 4 for \$.25.)

ENCLOSED FUSES, NON-RENEWABLE

Amps.	Non-Indicating Price Each		Indicating Price Each	
	250 Volts	600 Volts	250 Volts	600 Volts
1 to 30.....	Fuse \$.10	Fuse \$.30	Fuse \$.20	Fuse \$.40
35 to 60.....	.20	.40	.35	.65
70 to 100.....	.60	1.10	.95	1.75
110 to 200.....	1.20	1.85	1.85	2.90
225 to 400.....	2.15	4.10	3.35	6.35
450 to 600.....	4.10	6.00	6.35	9.25
650 to 800.....	8.95	11.00	13.85	17.35

RENEWABLE FUSES

Amps.	Fuses		Links	
	250 Volts	600 Volts	250 Volts	600 Volts
1 to 30.....	\$.50	\$ 1.10	\$.03	\$.05
35 to 60.....	1.00	1.25	.05	.06
65 to 100.....	2.00	3.00	.10	.10
110 to 200.....	4.00	5.00	.15	.15
225 to 400.....	7.50	11.00	.30	.30
450 to 600.....	11.00	16.00	.60	.60

FUSE WIRE

FUSE WIRE						
Size in Amps.....		3/4	1 1/2	1	2	
Price Per Pound.....		\$65.00	\$6.50	\$2.60	\$2.30	
Price Per Foot.....		.01	.01	.01	.01	
Size in Amps.....	3	5	6	10	15	
Price Per Pound.....	\$1.95	\$1.50	\$1.50	\$1.30	\$1.30	
Price Per Foot.....	.01	.01 1/2	.02	.02 1/2	.03	
Size in Amps.....	20	25	30	40	50	
Price Per Pound.....	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	
Price Per Foot.....	.04	.05	.07	.08	.10	
Size in Amps....	60	70	75	80	90	100
Price Per Pound..	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
Price Per Foot....	.15	.20	.21	.22	.24	.25
Fuse Strip Any Amperage....\$1.00 per lb.						

Fuse Strip Any Amperage...\$1.00 per lb.

OPEN LINK FUSES

Small Wire Type

Size in Amps.....	1 to 30	35 to 60	65 to 100
Numbers.....	00-0-1-2-3	2-3-5	5
Price Each.....	\$.12	\$.16	\$.22

Large Strip Type

Size in Amps.....	25-100	110-200	225-400
Numbers.....	7	7 to 16	10 to 16
Price Each.....	\$.22	\$.30	\$.60
Size in Amps.....	425-600	600-800	800-1500
Numbers.....	10 to 16	28	40
Price Each.....	\$1.10	\$1.80	\$6.80

STAMPED SHEET METAL LINK FUSES

Type of Link.....	B	C	D	E-F-H-I-L-M
C to C Distance.....	1 1/4	2 1/4	2 3/4	See Catalog
Price Each.....	\$.12	\$.12	\$.18	\$.35

ELECTRICAL CONTRACTING

FITTINGS, CONDUIT, THREADED

STANDARD TYPES, COVERS EXTRA
"Condulets" "Taplets" "Unilets" "V. V." "Electrolets"

		"Powerlets" Etc.			
		3/4"	1"	1 1/4"	1 1/2"
A 1- Piece	Type	\$.33	\$.44	\$.60	\$.87
B 2- "		.40	.50	.70	1.12
BE "		.85	1.05	1.55	2.38
C 1- "		.50	.57	.83	1.32
CO "		.70	.81	1.05	1.75
D "		.48	.58	.80	1.32
E "		.40	.50	.70	1.12
F 2- "					1.46
(See Page PL-13)					
For Special Form 6 Fittings See Page PL-13.					
LB-LF-LL-LR		.56	.63	.81	1.47
LBB-LFB-LLB-LRB		.81	1.12	1.33	1.75
LBL-LBR-LU-LUA		.67	.80	1.12	1.71
T All One Size		.98	1.05	1.40	2.18
TA All One Size		.68	.81	1.12	1.71
TB-TL-TR		.68	.75	1.10	1.76
U-UB-UF		.84	1.09	1.47	2.50
X All One Size					
Gaskets		.14	.14	.21	.28
Reducers		.21	.21	.28	.42
Unions		.63	.70	1.05	1.48

		2"	2 1/2"	3"	3 1/2"	4"
A 1-Piece	Type	\$2.32	\$5.46	\$ 6.50	\$10.60	\$11.70
B 2- "		3.00	5.46	6.50	10.60	11.70
BE "		3.65	5.46	7.30	9.10	10.65
C 1- "		5.45	10.60	11.70	19.90	22.10
CO "		3.40	6.24	8.10	11.70	14.30
D "		4.46	6.75	10.27	16.38	17.95
E "		3.40	6.24	8.10	11.70	14.30
F 2- "		3.00	5.46	6.50	10.60	11.70
LB-LF-LL-LR			5.46	7.30	9.10	10.65
For Special Form 6 Fittings See Page PL-13.						
LBB-LFB-LLB-LRB		3.50	6.50	8.45	13.65	15.60
LBL-LBR-LU-LUA		3.72	8.52			
T All One Size		3.58	6.50	9.75	14.30	16.90
TA All One Size		5.53				
TB-TL-TR		3.58	6.50	9.75	14.30	16.90
U-UB-UF		4.20	7.80	10.15	16.38	18.75
X All One Size		4.90	7.80	13.00	16.90	20.80
Gaskets		.35	.52	.52	.65	.65
Reducers		.70	1.30	1.76	2.60	3.58
Unions		3.78	6.18	10.40		

NOTE: For Special Prices on Types F&LB Entrance Fittings See Page PL-13.

COVERS
For Above

		3/4"	1"	1 1/4"	1 1/2"
Sheet Steel Blank Met. Cover		\$.11	\$.15	\$.33	\$.45
Cast-Iron		.21	.31	.59	.70
Porcelain with Holes		.14	.22	.35	.51
Metal with 1/4 Nipple		.28	.35	.59	.65
" " 1/2 "		.33	.40	.54	.70
" " 3/4 "		.35	.42	.56	.73
Porcelain with 1/4 Nipple		.35	.42	.60	.82
" " 1/2 "		.42	.49	.67	.88
" " 3/4 "		.40	.57	.74	.95
Porcelain for Drop Cord		.49	.56	.70	
Porcelain Weatherproof Sockets		.22	.35	.56	
Composition with Holes		.28	.42	.70	1.40
Composition Split with Holes		.56	.84	1.40	2.80

		1 1/2"	2"	2 1/2"	3 1/2"	4"
Sheet Steel Blank Met. Cover		\$.63	\$.70	\$1.05	\$1.12	
Cast Iron		.98	1.26	1.61	1.75	
Porcelain with Holes		.67	.84	1.12	1.26	
Metal with 1/4 Nipple		.82				
" " 1/2 "		.86				
" " 3/4 "		.88				
Porcelain with 1/4 Nipple		1.01				
" " 1/2 "		1.08				
" " 3/4 "		1.16				
Porcelain for Drop Cord						
Porcelain Weatherproof Sockets						
Composition with Holes		1.55	1.68			
Composition Split with Holes		3.10	3.36			

RECEPTACLES & ROSETTES
For Above

		3/4"	1"	1 1/4"	1 1/2"
Lamp Receptacle without Shade Holder Groove		\$.35	\$.42	\$.50	\$.56
" " with Shade Holder Groove		.42	.50	.56	.63
Fixture Rosette with 1/4 or 1/2 Nipple—Male or Female		.56	.63	.70	.76
Cord Rosette with One Outlet		.42	.50	.56	.63
" " Two Outlets		.50	.56	.63	.70
Polarity Plug Receptacle for Hubbell 6 Amp.		.77	.85	.91	.98
Attachment Plug Receptacle for Hubbell 6 Amp.		.56	.63	.70	.76

FS SERIES FOR FLUSH DEVICES
Shallow Type Without Covers, Any Make

No. Gangs	No. Pipe Outlets	Series	3/4"	1"	1 1/4"
Single Gang	One	FS-FSA	\$.91	\$1.08	\$1.19
"	Two	FSC-FSL-FSR-FSLA-FSS-FSAA	1.05	1.26	1.54
"	Three	FSCA-FSCC-FSCT-FST	1.40	1.75	2.03
"	Four	FSX-FSCD	1.68	2.10	2.38
Two Gang	One	FS-FSA	1.68	1.82	1.96
"	Two	FSC	1.82	1.96	2.17
"	Three	FSD	2.03	2.17	2.31

June, 1929

FS SERIES FOR FLUSH DEVICES—Continued

No. Gangs	No. Pipe Outlets	Series	3/4"	1"	1 1/4"
2 Gang Tandem	One	FS	2.31	2.45	2.59
"	Two	FSC	2.45	2.59	2.73
Three Gang	One	FS-FSA		2.52	2.73
"	Two	FSC		2.66	2.87
"	Four	FSD	2.73	3.01	3.32
Four Gang	One	FS-FSA		3.08	3.36
"	Two	FSC-FSSE		3.29	3.50
"	Five	FSD	3.44	4.00	4.34

COVERS FOR FS FITTINGS

Description	Single Gang	2 Gang
Metal Cover for Std. Flush Push Switches	\$.21	\$.42
" " " Tumbler or Toggle Switches	.21	.42
" " " Rotary Switches	.21	.42
Metal Cover for Single Flush Receptacle	.21	.42
" " Duplex Flush Receptacle	.42	.84
" " with Lift Cover	.84	1.68
" " for Disapp. Door Receptacle	1.12	2.24
" " with 1/4 Metal Nipple	.49	
" " 1/2 "	.54	
" " 3/4 "	.56	
Blank Metal Cover Sheet Steel	.14	.28
" " Cast-Iron	.35	.70
Porcelain Cover with Holes	.28	
Cast Cover with Guard for Push Switches	.49	.81

Description	3 Gang	4 Gang
Metal Cover for Std. Flush Push Switches	\$.63	\$.84
" " " Tumbler or Toggle Switches	.63	.84
" " " Rotary Switches	.63	.84
" " " Single Flush Receptacle	.63	.84
" " Duplex Flush Receptacle		
" " with Lift Cover	2.52	3.36
" " for Disapp. Door Receptacle		
" " with 1/4 Metal Nipple		
" " 1/2 "		
" " 3/4 "		
Blank Metal Cover Sheet Steel	.56	.84
" " Cast-Iron	1.05	1.40
Porcelain Cover with Holes		
Cast Cover with Guard for Push Switches	1.40	1.96

METAL COMBINATION PLATES FOR FS SERIES

2 Gang for One Switch and one Sgle. or Duplex Receptacle	\$.70
2 " " Bull's Eye with Ruby Glass	1.75
3 " " One Receptacle & one Bull's Eye	1.96

NOTE: Although our prices on conduit fittings apply to all makes we use Crouse Hinds' numbers and lists for convenience.

G & H WITHOUT ADJUSTABLE BAR

Type	5 Amp.	1"	10 Amp.	1"
Crouse Hinds or Similar				
G	\$.56	\$.70	\$1.05	\$.70
GL	.63	.77	1.12	.77
GA-GLA-GT	.84	.98	1.33	.98
GTA-GX	1.05	1.19	1.65	1.19
H	.42	.56	.91	.56
HA	.49	.63	.98	.63
HH	.56	.70	1.05	.70
HHC	.84	.98	1.33	.98
HLA	.77	1.12		.77

Type	20 Amp.	1"
Crouse Hinds or Similar		
G	\$.90	\$1.05
GL	1.05	1.19
GA-GLA-GT	1.26	1.40
GTA-GX	1.50	1.65
H	.84	.91
HA	.91	.98
HH	.98	1.05
HHC	1.26	1.40
HLA	1.05	1.19

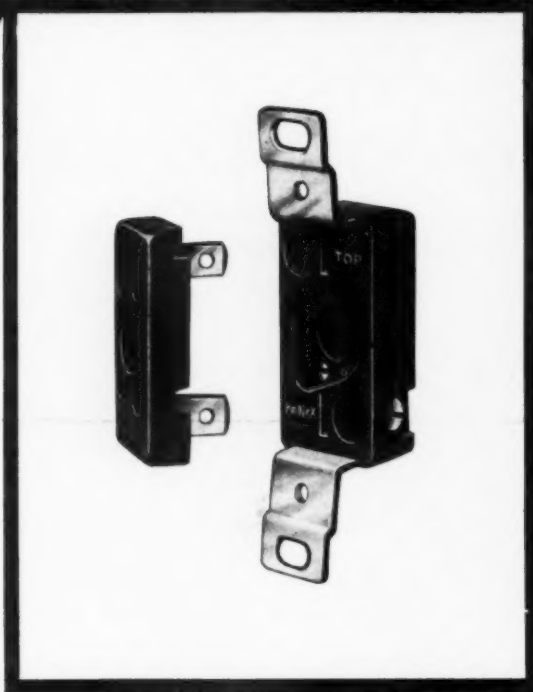
G & H WITH ADJUSTABLE BAR

Type	5 Amp.	1"	10 Amp.	1"
Crouse Hinds or Similar				
G	\$.77	\$.91	\$1.26	\$.91
GL	.84	.98	1.33	.98
GA-GLA-GT	1.05	1.19	1.54	1.19
GTA-GX	1.26	1.40	1.89	1.40
H	.63	.77	1.12	.77
HA	.70	.84	1.19	.84
HH	.77	.91	1.26	.91
HHC	1.05	1.19	1.54	1.19
HLA	.84	.98	1.33	.98

Type	20 Amp.	1"
Crouse Hinds or Similar		
G	\$1.26	\$1.33
GL	1.33	1.40
GA-GLA-GT	1.54	1.68
GTA-GX	1.75	1.96
H	1.12	1.19
HA	1.19	1.26
HH	1.26	1.33
HHC	1.54	1.68
HLA	1.33	1.40

BRYANT

"KE NEX" PLUG & RECEPTACLE



A PRACTICAL
QUICK, SAFE
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ETC.

The Plug and Receptacle Principle applied to Lighting Fixtures for Walls

"KE NEX" plug and receptacle have many advantages beside that of practical easy installation. Their use enables the electrical contractor to finish and test his work, as fixtures may be quickly attached at any time, without soldering or taping of wires. There are no protruding, taped wires dangling from outlet boxes, endangering the decorator's finishing work. A satisfactory selection of fixtures is assured as they can be easily "plugged in" "on the job" instead of on their confusing selection in crowded showrooms or from catalog. Fixtures can be readily taken down for refinishing, cleaning, replacement or when redecorating.

"KE NEX" is installed in a standard switch outlet box and requires no more especial alignment or centering than is given to any switch or convenience outlet device. All wiring connections are made to binding screw terminals. The electrical connection is made by "plugging in".

The mechanical support of the bracket is completed by anyone of three standard methods—threaded stud, two screw or French hook.

Complete bulletins on "KE NEX" sent on request.

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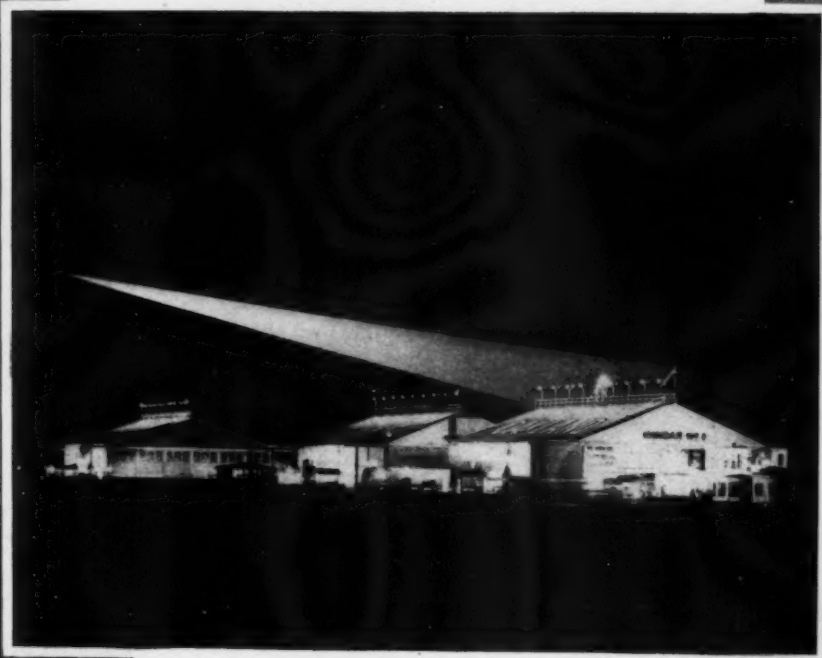
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AIRPORT Lighting provides a fertile, profitable field for Electrical Contractors. Diamond E engineers after intensive study, research and experience are in a position to furnish the best possible electrical service-advice to contractors interested in this latest development. Diamond E magnetic switches, Switchboards, Panels, Wiring Gutter and other *high quality* products are especially adaptable to Airport Lighting installations. A notable example is the Municipal Airport at Oakland, California, where Diamond E products were used extensively. *Definite information and specifications on Diamond E equipment suitable for any proposed Airport Lighting job will be furnished upon request.* . . .

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*Now have a
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ARROW ELECTRIC DIVISION

THE ARROW - HART & BRIGGS ELECTRIC CO.

HARTFORD, CONN.



N99251



N99030



TYPE "B"
Malleable Unilet with Cadmium Finish



TYPE "C"
Malleable Unilet with Cadmium Finish



TYPE "E"
Malleable Unilet with Cadmium Finish



TYPE "LB"
Malleable Unilet with Cadmium Finish



TYPE "T"
Malleable Unilet with Cadmium Finish



TYPE "LRL"
Malleable Unilet with Cadmium Finish
Changing cover gives Type "LL" or "LR"



Threaded type Malleable Unilets as used in connection with a switchboard installed by W. C. Krauth Electric Co., Louisville, Ky.

Hit an Appleton Unilet with a Hammer! Hit it Again!

Hammer blows, knocks, constant vibrations have no effect on Appleton Unilets because they are made of malleable iron. To add to the wonderful corrosion resistance of this malleable iron, Appleton Unilets are coated with Cadmium. They will give a life-time of service.

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Name

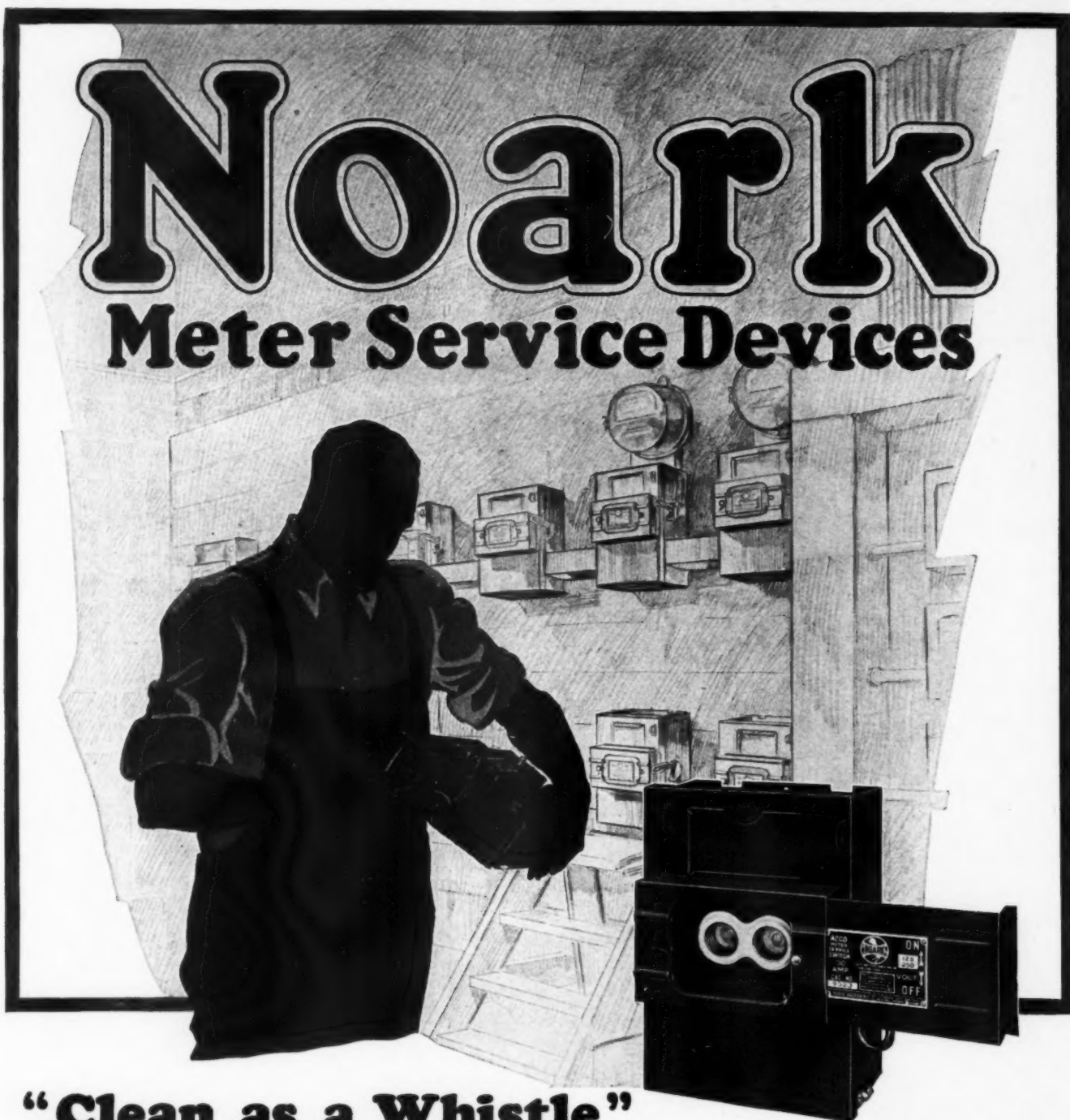
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"Clean as a Whistle"


"TALK all you like about one make of meter box being as good as another—I'm here to tell you that you'll go a long way before you'll find as good construction, as clean knockouts or as handy terminals as you get in

NOARK Meter Service Switches

When you can take out your knockouts, hang your boxes, set your troughs, pull in your wires and make your connections without any trouble or delays, you can make time—and time is what counts in making a meter switch installation, every time."

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SURFACE TUMBLER SWITCHES

YOUR ALL-PURPOSE SWITCH

IN THE
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NEW BAKELITE OR METAL COVER

NEWLY CREATED Switches with the old Reliability of your H & H mechanism . . . Out of the whirl of new ideas—whipped into practical form by 39 years' experience. Evolved from four decades of switch-craft, centered on service to the Contractor. Keeping jobs up-to-date, up-to-style. Turning time into money always more rapidly.

No. 610: Surface Tumbler with *Snap-on Cover*; easiest "snap" to install. Clap the cover over the handle—onto the base—and it's on to stay! Speeds-up wiring; saves fussing with tiny screws. Stands out as the newer, neater sort of job.

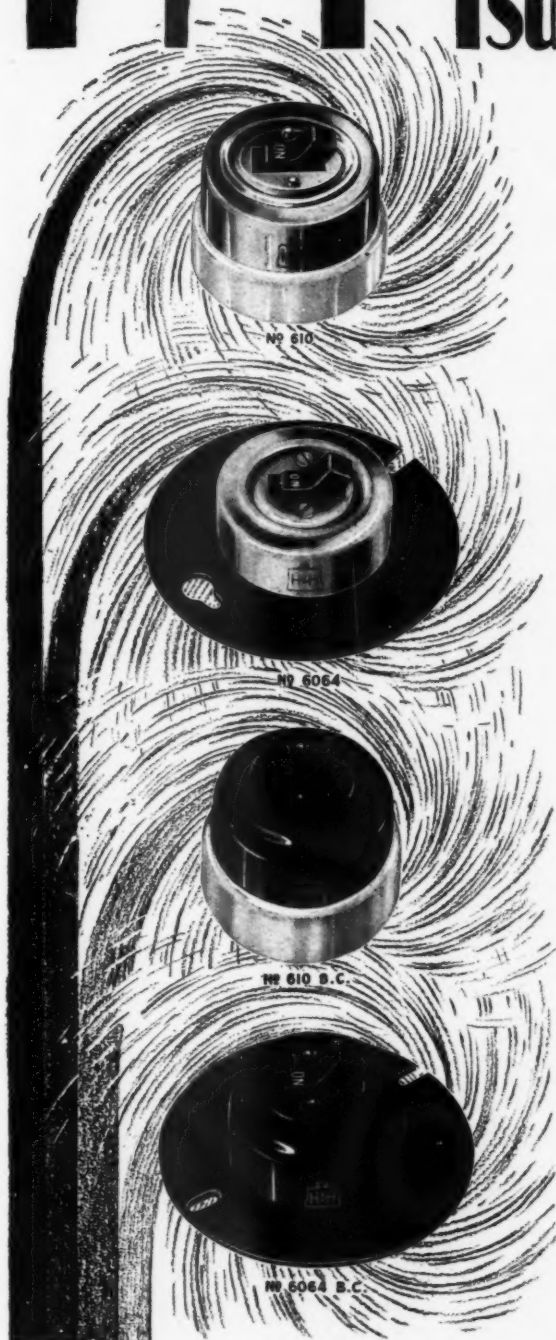
No. 6064: Surface Tumbler with Outlet Box Cover — in *one*. Does a double job with a single device. Handiest possible combination for pipe jobs. Switch part has nicked cover; box cover japanned.

No. 610 B. C.: Surface Tumbler with Bakelite Cover. Here's the switch that *stays new* even in air charged with moisture or chemical fumes. Cover cannot corrode in damp cellars, outbuildings, laundries, mills or factories where steam or chemicals fill the air; residences near salt water, etc.

No. 6064 B. C.: Switch and Outlet Box Cover combined, with Bakelite switch-cover and japanned outlet-box cover. Corrosion-proof switch-cover for installations exposed to dampness or chemical attack.

Each switch here has the stuff in it for lifetime loyalty to the man who installs it. All have the famous "*balanced mechanism*" of the H & H flush-type Tumbler. Smoothest of actions; easy-throw; even tension. Specify from new catalogue data-sheet, ready to forward at your request.

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HARTFORD, CONN. MAKERS OF ELECTRIC SWITCHES SINCE 1890



Fittings, Conduit

	Without			With		
	Adjustable Bar	Adjustable Bar	Adjustable Bar	Adjustable Bar	Adjustable Bar	Adjustable Bar
	5 Amp.	10 Amp.	20 Amp.	5 Amp.	10 Amp.	20 Amp.
.....	\$.28	\$.35	\$.56	\$.21	\$.21	\$.49
"	.21	.28	.35	.14	.14	.35
Nip	.42	.49	.70	.85	.35	.63
"	.56	.56	.77	.42	.42	.70
"	.93	.93	.91	.49	.49	.84
"	.35	.42	.49	.28	.28	.42
"	.42	.49	.56	.35	.35	.49
"	.49	.56	.63	.42	.42	.56

	Price Each
Lamp Receptacle with Shade Holder Groove No. H546.....	\$.70
Fixture Rosette Porcelain with $\frac{1}{8}$ " Nipple No. H549 & H548.....	.77
$\frac{1}{4}$ " No. H551 & H552.....	.91
Fixture Rosette Composition with $\frac{1}{8}$ " Nipple No. H571 & H572.....	1.00
Cord Rosette Porcelain H553.....	.60
" Composition H554.....	.60
Lamp Receptacle—One Piece—No. H556 or 557.....	.38

	1 1/2"	1 3/4"	1 7/8"
J A-JB-JU.....	\$.84	\$1.05	\$1.60
L.....	.98	1.19	1.61
T.....	1.19	1.33	1.50
X.....	1.33	1.50	1.61
K.....	1.50	1.61	1.82
KA-KB-KC-KD.....	.70	.91	1.33
	.84	1.05	1.50

Lamp Receptacle S. H. Groove.....	\$.63
No S. H. Groove.....	.56
Fixture Rosette with Nipple.....	.56
Plug Receptacle 6 Amp.....	.70
20.....	.91
Cord Rosette.....	.49
Blank Cast Cover.....	.42

Prices are for Iron Fittings and include Guard and Globe		Form 75
V-VA Complete as Above.....	\$5.85	\$6.00
VB-VC-VL Complete as Above.....	5.98	6.24
VCA-VLA-VT-VE-VS Complete as Above...	6.17	6.56
VTA-VX Complete as Above.....	6.30	6.76
VXA Complete as Above.....	6.57	6.83
VF-VK-VP Complete as Above.....	6.37	6.63
VD-VJ Complete as Above.....	6.70	6.96
Prices are for Iron Fittings and include Guard and Globe		Form 200
V-VA Complete as Above.....	\$7.02	\$7.16
VB-VC-VL Complete as Above.....	7.15	7.35
VCA-VLA-VT-VE-VS Complete as Above...	7.28	7.63
VTA-VX Complete as Above.....	7.41	7.87
VXA Complete as Above.....	7.67	8.13
VF-VK-VP Complete as Above.....	7.48	7.73
VD-VJ Complete as Above.....	7.67	7.93

	Form 75	Form 200
Guard with Half Metal Shade.	\$3.90	\$4.20
" " Gauge Metal Shade.	6.50	7.80
" " without Shade.	2.34	2.95
Globes only, clear.	1.12	1.12
" " opal.	1.54	2.38
" " green-blue & orange.	2.38	3.30
" " ruby.	3.30	4.06
Brass Reflector Holder Galv. Finish.	1.96	3.31
Threaded Blank Covers Iron Black Finish.	1.05	1.40
Sealing Plate Iron Galv. Finish.	21	35
Recentacle with Gasket & Screws.	56	56

	Form 75	Form 200		
	Iron	Brass	Iron	Brass
Pendant or Bracket Type Complete...	\$7.93	\$11.18	\$8.80	\$12.42
Receptacle Only56

NOTE: Above numbers and figures are for Crouse Hinds' make or similar

Types	1 1/2"	3 1/2"	1"	1 1/4"
Without Covers				
A.	\$.46	\$.62	\$.84	\$1.26
B.	.53	.70	.95	1.47
BE.	.95	1.23	1.79	2.74
C.	.74	.94	1.33	2.03
CB.	1.04	1.34	1.86	2.80
D.	.74	.94	1.29	2.03
E.	.53	.67	.94	1.48
I.B-LF-LL-LR.	.81	.98	1.40	2.17
SE.	.81	1.09	1.71	2.66
T-L-TR.	1.04	1.34	1.85	2.80
TB.	1.47	1.82	2.38	3.64
U & UB.	.91	1.12	1.54	2.52
X.	1.33	1.82	2.45	3.43
XR.	2.03	2.52	3.29

Types Without Covers	1½"	2"	2½"	3"
A.....	\$1.61	\$3.15	\$ 6.65	\$ 8.10
B.....	1.96	3.85	6.65	8.10
BE.....	3.64	6.30	11.70	13.30
C.....	2.66	5.11	8.55	11.15
CB.....	3.85	6.16	9.90	14.30
D.....	2.66	5.11	8.55	11.15
E.....	1.96	3.85	6.65	8.00
LB-LF-LL-LR.....	2.94	5.18	8.80	11.50
SE.....	3.99	7.00	11.85	14.85
T-TL-TR.....	3.85	6.16	9.90	14.40
TB.....	5.18	9.00
U & UB.....	3.29	6.00	10.10	13.20
X.....	4.48	8.33	12.35	19.15
XB.....				

H Couplings	1 1/2"	3 1/2"	1"	1 1/2"
KO Box Connector	\$.32	\$.48	\$.83	\$1.11
NO " "20	.29	.67	1.34
SCA Cable Connector24	.31	.56	.84
SLP Short Elbow13	.17	.24	
KOL Box Connector39	.52	.83	1.00
KOR Reducer43	.57	.98	1.54
	.58	.63		
H Couplings	1 1/2"	2"	2 1/2"	3"
KO Box Connector	\$1.54	\$3.21	\$4.00	\$6.37
NO " "	1.18	2.49	3.28	4.30
SCA Cable Connector				
SLP Short Elbow	1.23	2.66		
KOL Box Connector	2.07	4.20		
KOR Reducer				

	1 1/2"	1 3/4"	1"	1 1/4"
Blank Metal.....	\$.11	\$.15	\$.32	\$.45
Rubber Gasket.....	.14	.14	.21	.28
Metal, 1/4 Nip.....	.28	.35	.49	.64
" 3/8 ".....	.32	.39	.53	.69
" 1/2 ".....	.35	.42	.56	.71
" 5/8 ".....	.42	.49	.63	.78
Porcelain with Holes.....	.14	.21	.35	.60
Metal, Cord Grip.....	.28	.35	.49	...
	1 1/2"	2"	2 1/2"	3"
Blank Metal.....	\$.63	\$.78	\$1.05	\$1.05
Rubber Gasket.....	.28	.60	.84	.84
Metal, 1/4 Nip.....	.81
" 3/8 ".....	.85
" 1/2 ".....	.88
" 5/8 ".....	.95
Porcelain with Holes.....	.67	.84	1.12	1.12
Metal, Cord Grip.....

Lamp Recept. without Shade Holder Groove PR...		3/4"	3/4"	1"
" with Shade Holder Groove PRS.....		\$.35	\$.42	\$.49
Porcelain for Weatherproof Socket WP2.....		.42	.49	.56
Polarity Plug Receptacle 10 Amp. P.....		.28
" Duplex PD.....		.56	.63	.70
	70	.78
			Sgle. Pole	Dble. Pole
Snap Switch 5 Amp. 125 Volt Non Indicating....		\$.70	3 Pole
" " 5 " 125 " Indicating.....		.77
" " 10 " 125 " Non-Indicating.....		1.12	\$1.47	1.47
" " 10 " 125 " Indicating.....		1.26	1.68

Type	1 Gang	2 Gang
	$\frac{1}{4}$ "	$\frac{1}{2}$ "
FSE-FSB.....	\$1.05	\$1.40
FSC-L & R.....	1.33	2.03
FST.....	1.75	2.73
FSU.....	1.26	2.03
FSD.....	1.75	2.73

Type	3 Gang			4 Gang		
	1/2"	3/4"	1"	1/2"	3/4"	1"
FSE-FSB.....		\$2.76	\$2.97		\$3.36	\$3.64
FSC-L & R.....		3.08	3.36		3.71	3.99
FST.....						
FSU.....						
FSD.....	\$3.22	3.57	3.85	\$4.27		

	One Gang	2 Gang
Blank Metal Plate.....	\$.37	\$.70
Receptacle Plate.....	.28	.38
Toggle or Push Button Switch Plate.....	.38	

Type	5 Amp.		10 Amp.		
	1 1/2"	3 1/2"	1 1/2"	3 1/2"	1"
OA	\$.63	\$.64	\$.77	\$1.05	\$1.33
OC	.77	1.05	.91	1.26	1.68
OCB	1.19	1.54	1.33	1.75	2.24
OE	.56	.77	.70	.98	1.26
OEB	.91	1.12	1.05	1.33	1.75
OL	.91	1.12	1.05	1.33	1.75
OLB	1.19	1.54	1.33	1.75	2.24
OT	1.19	1.54	1.33	1.75	2.24
OTB	1.54	1.96	1.68	2.10	2.80
OU	.77	1.05	.91	1.26	1.68
OUE	1.19	1.54	1.33	1.75	2.24
OX	1.54	1.96	1.68	2.10	2.80
ONB	1.89	2.31	2.03	2.52	3.33

Fittings, Entrance

Fittings, Armored Cable

Ent. Cap 1525-32 with Cover.....	1½"	¾"	1"	1¾"
Capped Elbow 1470-84 with Cover.....	\$.40	\$.45	\$.65	\$1.00
Insulets 1610-11-12 with Cover.....	.50	.60	.70	1.95
Angle Insulets 1640-1-2 with Cover.....	.15	.20	.25
Cable Insulets 2000 with Cover.....	.30	.45	.60
	.15
Ent. Cap 1525-32 with Cover.....	1½"	2"	2½"	3"
Capped Elbow 1470-84 with Cover.....	\$1.70	\$2.95	\$6.25	\$7.65
Insulets 1610-11-12 with Cover.....	2.30
Angle Insulets 1640-1-2 with Cover.....
Cable Insulets 2000 with Cover.....

ROUND "ADAPTI" BOXES

Series Numbers	Style	1½"	¾"	1"
No. 02900.....	1 Back Outlet	\$4.40	.....	.....
No. 2900-1-2-3.....	"	.36	\$.48	\$.60
No. 3000 to 3005.....	1 Side Outlet	.48	.60	.74
No. 3100 to 3105.....	"	.48	.48	.60
No. 3100T & 3101T Thrls.	" " "	.48	.55	.....
No. 31700 to 3175.....	" " "	.47	.54	.67
No. 3200 to 3205.....	2 " "	.48	.54	.74
No. 3200T & 3201T Thrls.	" " "	.60	.68	.....
No. 3270 to 3275.....	" " "	.60	.67	.94
No. 32170 to 32175.....	" " "	.54	.60	1.00
No. 3300 to 3305.....	3 " "	.64	.88	.98
No. 3300T to 3305T Thrls	" " "	.82	.95	.....
No. 33170 to 33175.....	" " "	.71	.83	1.07
No. 3400 to 3405.....	4 " "	.80	1.05	1.20
No. 3500 to 3705.....	2 " "	.54	.60	.75
No. 3800 to 3805.....	" " "	.54	.60	.80
No. 3900 to 4005.....	3 " "	.80	.93	1.08
No. 4800 to 5005.....	4 " "	.94	1.03	1.34

Series Numbers	Style	1¾"	1½"	2"
No. 02900.....	1 Back Outlet	\$1.10	.....	.....
No. 2900-1-2-3.....	"	1.80	\$2.00	\$2.75
No. 3000 to 3005.....	1 Side Outlet	1.10	1.80	2.40
No. 3100 to 3105.....	" " "	.....	.....	.....
No. 3100T & 3101T Thrls.	" " "	1.15	1.85	2.46
No. 31700 to 3175.....	" " "	1.25	2.13	2.75
No. 3200 & 3205.....	2 " "	.....	.....	.....
No. 3200T & 3201T Thrls.	" " "	1.40	2.28	2.88
No. 3270 to 3275.....	" " "	1.34	2.20	2.80
No. 32170 to 32175.....	" " "	1.96	2.68	3.00
No. 3300 to 3305.....	3 " "	.....	.....	.....
No. 3300T to 3305T Thrls.	" " "	1.70	2.75	3.10
No. 33170 to 33175.....	" " "	1.87	2.90	3.35
No. 3400 to 3405.....	4 " "	1.40	2.28	3.35
No. 3500 to 3705.....	2 " "	1.40	2.28	3.35
No. 3800 to 3805.....	" " "	1.85	2.90	4.00
No. 3900 to 4005.....	3 " "	1.95	3.55	4.70
No. 4800 to 5005.....	4 " "	.....	.....	.....

Series No.	Description	1½"	3½"	1"
500-501-502	Base Only	\$.27	\$.27	\$.54
500X-501X	Extension Ring	.27	.27	.40
501A	Base Concealed to Expd.	.67	.67	.67
0500	" with Tapped Boss	.34	.34
510 to 512	Base	.40	.40	.80
520 to 522	"	.27	.27	.52
530	"	1.80	1.80
540 to 542	"	.27	.27	.52
30 to 35	Metal Side Plates	.14	.14	.20
40 to 42	Insulated Side Plates	.16	.16	.34
50 to 54	Armd. Flex. Side Plates	.34	.43	.52
60 to 65	Angle Outlet	.15	.24	.43
70 to 75	Elbow Outlet	.24	.30	.50
90 to 93	Connecting Outlet	.2825
100 & 101	Straight for No. 500 Base	.15	.24
110 to 113	" " No. 501 "	.28	.34	.43
120 to 125	" " No. 502 "	.47	.53	.67
130 to 135	" " No. 503 "	1.08	1.33	1.60
140 to 145	" " No. 504 "	2.67	3.08	3.48
300 & 301	Threadless Outlet	.20	.28
310 & 311	"	.34	.40
Series No.	Description	1½"	1½"	2"
500-501-502	Base Only	\$.54	\$ 1.08	\$ 1.08
500X-501X	Extension Ring	.40
501A	Base Concealed to Expd.	.67
0500	" with Tapped Boss
510 to 512	Base	.80	1.60	1.60
520 to 522	"	.52	1.08	1.08
530	"
540 to 542	"	.52	1.08	1.08
30 to 35	Metal Side Plates	.20	.38	.38
40 to 42	Insulated Side Plates	.34	.67	.67
50 to 54	Armd. Flex. Side Plates	.67
60 to 65	Angle Outlet	.48	.94	1.08
70 to 75	Elbow Outlet	.55	1.00	1.14
90 to 93	Connecting Outlet30	.47
100 & 101	Straight for No. 500 Base
110 to 113	" " No. 501 "	.48
120 to 125	" " No. 502 "	.80	.94	1.07
130 to 135	" " No. 503 "	1.88	2.14	2.40
140 to 145	" " No. 504 "	3.87	4.28	4.67
300 & 301	Threadless Outlet
310 & 311	"

Numbers	Description	Price
1	Porcelain One Hole Cover.....	\$.18
2	Metal For Devices.....	.30
3	Porcelain One Hole Cover.....	.30
4	Porcelain.....	.22
5 & 6	Porcelain with $\frac{1}{4}$ " Male or Female Nipple.....	.53
7 & 8	" " " "	.38
9 & 10	Malleable with $\frac{1}{4}$ " Male or Female Nipple.....	.30
11 & 12	" " " "	.38

NOTE: For "Adapti" Entrance Fittings See Page PL-13.

**Crouse Hinds—Appleton & Similar
Type GCA**

Without Soldering Lug		Price
Fitting No.	GCA-12 For 1/2" Conduit.....	\$.77
" " "	-172 " " " with lug .....	.81

With Angle Adjustment		Price
GCD-12 For $\frac{1}{2}$ "	Conduit without Lug with one Strap.....	\$.90
GCD-172 For $\frac{1}{2}$ "	Conduit with Lug with one strap.....	.95
GCD-22 For $\frac{3}{4}$ "	Conduit with Lug with two Straps.....	1.77
GCD-32 For 1"	Conduit with Lug with three Straps.....	2.61

Size of Conduit Outside Diameter of Water Pipe Number.....	With Strap Clamp Terminal											
	$\frac{1}{2}$ to $2\frac{3}{4}$ "	$\frac{1}{2}$ to $4\frac{1}{2}$ "	$\frac{1}{2}$ to $6\frac{3}{8}$ "	$\frac{1}{2}$ to $2\frac{3}{4}$ "	$\frac{1}{2}$ to $4\frac{1}{2}$ "	$\frac{1}{2}$ to $6\frac{3}{8}$ "	$\frac{1}{2}$ to $2\frac{3}{4}$ "	$\frac{1}{2}$ to $4\frac{1}{2}$ "	$\frac{1}{2}$ to $6\frac{3}{8}$ "	$\frac{1}{2}$ to $2\frac{3}{4}$ "	$\frac{1}{2}$ to $4\frac{1}{2}$ "	$\frac{1}{2}$ to $6\frac{3}{8}$ "
Price.....	\$1.58	\$1.80	\$2.16	\$2.27	\$3.42	\$4.14	\$4.41	\$5.09	\$6.17			

GCE-142 For 1/2" Conduit without Lug.....	\$.90
GCE-242 " 3/4" " with Lug.....	1.04
GCE-342 " 1" " with Lug.....	1.17

GC-92	Cast Brass with No. 4 Lug.....	\$.72
GC-922	" " " " 00 Lug.....	1.44

Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
Without Cap Screw...	\$.10	\$.13	\$.20	\$.24	\$.31	\$.46	\$.84	\$1.10
With Cap Screw.....	.20	.24	.31	.32	.40	.61	\$1.00	1.25

	Price
Soldering Lug GCA-130 For GCA & GCD Fittings.....	\$.06
Water Meter Stud No. GC-192.....	1.80
Strap Clamp Terminal For Water Pipe— $\frac{1}{2}$ " to $2\frac{1}{2}$ " No. GCE-012.....	1.04
" " " " " " " " $\frac{3}{4}$ " to $4\frac{1}{2}$ " No. GCE-014.....	1.28
" " " " " " " " $\frac{1}{2}$ " to $6\frac{1}{2}$ " No. GCE-016.....	1.66
Conduit End Terminal $\frac{1}{2}$ " No. GCE1.....	.36
" " " " $\frac{3}{4}$ " No. GCE2.....	.36
" " " " $1\frac{1}{2}$ " No. GCE3.....	.63
Jumper Strap No. GC110.....	.15
Threaded Plug Terminals, Iron No. GCE042.....	.36
" " " " Brass No. 082.....	.72
Jumper Cable No. GC800, Per Foot.....	.18
Jumper for Bonding Conduit 8' Long, No. 808 Per Foot.....	.40
" " " " " " " " 12' " No. 812.....	.53
Soldering Lug Brass for $\frac{1}{4}$ " Conduit No. 130.....	.20
" " " " " " " " $\frac{3}{4}$ " or 1" No. 160.....	.30
Soldering Lug Copper for Bushing $\frac{1}{4}$ " to $2\frac{1}{2}$ ".....	.05
" " " " " " " " $2\frac{1}{2}$ to 6.....	.10
Brass Stud Double End Fits Bushings $\frac{1}{4}$ " to 6" No. GC52.....	.20
Soldering Clips for Bushings $\frac{1}{4}$ " to $1\frac{1}{2}$ ".....	.05
" " " " " " " " 2" to 6.....	.09
Grounding Strap, No. GC100, Per Foot.....	.25
Strap Clamp, Steel No. GC101.....	.35
" " " " Brass No. GC102.....	.65

FITTINGS OR BOX CONNECTORS, ARMORED CABLE

For BX or Armored Cable		Size of K. O.	Price Each
Description			
Standard Squeeze Connector	$\frac{3}{8}$ - $\frac{1}{2}$ "	$\frac{3}{8}$ "	\$.06
"	Set Screw Connector $\frac{3}{8}$ - $\frac{1}{2}$ "	$\frac{3}{8}$ "	.08
"	Slip In Connector $\frac{3}{8}$ - $\frac{1}{2}$ "	$\frac{3}{8}$ "	.06
"	Duplex Connector $\frac{3}{8}$ - $\frac{1}{2}$ "	$\frac{3}{8}$ "	.18
<hr/>			
STRAIGHT		$\frac{3}{8}$ "	.18
BOX	Squeeze	$\frac{3}{8}$ "	.18
CONNECTORS	or	1 $\frac{3}{8}$ "	.30
	Tangent	1 $\frac{1}{2}$ "	.50
	Type	1 $\frac{3}{4}$ "	.65
		1 $\frac{1}{2}$ "	.85
		2"	1.25
<hr/>			
90 DEGREE		$\frac{3}{8}$ "	.32
ANGLE BOX	Squeeze	$\frac{3}{8}$ "	.40
CONNECTOR	or	1 $\frac{3}{8}$ "	.75
	Tangent	1 $\frac{1}{2}$ "	1.00
	Type	1 $\frac{3}{4}$ "	1.25
<hr/>			
45 DEGREE		$\frac{3}{8}$ "	.32
ANGLE BOX	Squeeze	$\frac{3}{8}$ "	.40
CONNECTOR	or	1 $\frac{3}{8}$ "	.75
	Tangent	1 $\frac{1}{2}$ "	1.00
	Type	1 $\frac{3}{4}$ "	1.25
<hr/>			
PANEL BOX		$\frac{3}{8}$ "	.35
CONNECTOR	Straight	1 $\frac{3}{8}$ "	.46
	Type	1 $\frac{1}{2}$ "	.63
	With	1 $\frac{3}{4}$ "	.93
	Locknut	1 $\frac{1}{2}$ "	1.30
		1 $\frac{3}{4}$ "	1.88
		2"	2.88
<hr/>			
COUPLINGS	For $\frac{3}{8}$ " Conduit		.36
FOR	" $\frac{1}{2}$ " "		.38
FLEXIBLE	" $\frac{3}{4}$ " "		.42
STEEL	" 1" "		.54
CONDUIT	" 1 $\frac{1}{4}$ " "		.65
	" 1 $\frac{3}{8}$ " "		.90
	" 1 $\frac{1}{2}$ " "		1.10
	" 2" "		1.60

ELECTRICAL CONTRACTING

Fittings, Armored Cable

FITTINGS OR BOX CONNECTORS, ARMORED CABLE—Continued

COUPLINGS FOR RIGID TO FLEXIBLE CONDUIT	For 1/2" Conduit	.32
	" 3/4" "	.44
	" 1" "	.52
	" 1 1/4" "	.72
	" 1 1/2" "	.90
	" 2" "	1.37
Bushings or Ferrules—Brass		.02

FITTINGS FOR "OVALFLEX" ARMORED CABLE

Number	Description	Price
2150-57-60-61	Straps—Fasteners & Bushings	\$.02
2159	Toggle with Wire Loop	.03
2176-2180-2154	Set Screw Connector	.15
2179-2181	Special Box Connector	.10
2155-2156	90 Degree Box Connector	.35
412-413	Connector for Ovalflex to Metal Molding	.35
9050-S	Squeeze Connector	.10

HANGERS

FOR CABLE & CONDUIT Minerallac

Hangers			Porcelain Bushings				
Mfgs.	Conduit	Lead Covered	Price		Mfgs.	For RC	Price
No.	Size	Cable Size	Jap	Fin.	Glv.	Fin. No.	Cable
0	3/4"	No. 14	.07	.10	1	8-2-0	\$.10
1	1"	No. 1 to 4/0	.08	.11	2	3-0-4-0	.12
2	1 1/4"	4/0 to 300 M	.10	.12	3	250M-450M	.13
3	1 1/2"	500 to 750 M	.10	.12	4	500M-700M	.15
4	1 3/4"	800 to 1125M	.14	.15	5	750M-1000M	.17
5	2"	1500 M	.14	.16	6	1125-2500M	.24
6	2 1/2"	2000 M	.16	.18			

ADJUSTABLE BEAM HANGERS T & B or Similar

Type A Clamp Including Bolts Fits Flange 2 1/4" to 7 3/4"	Price Each
Type B & C Clamp Including Bolts Fits Flange 7 to 12"	.75
Special Bolts	.10

Supports for above Hangers

For One Conduit Steel	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
" Two Conduit Mall.	.13	.16	.25	.33	.40	.51	.65	\$.82
" Four Conduit Mall.	.20	.25	.33	.40	.50			
" Four Conduit Mall.	.31	.36						

NOTE: For Price of Complete Hanger add Prices of Clamp & Supports

HANGERS & PERFORATED BAR Grabler

For 1/2" to 1 1/2" Conduit Per Foot	\$.05
" 2" to 3" " " "	.06
" 3 1/2" to 6" " " "	.08

Hangers

No.	Description	1/2"	3/4"	1"	1 1/4"
1	Hinge Hanger with Extn. Bar & Lag Screw	\$.17	\$.17	\$.18	\$.20
7	Band Hanger Extn. Bar and Beam Clamp	.20	.20	.21	.24
13	Hinge Hanger, Socket and Beam Clamp	.32	.32	.35	.36
200	Band Hanger Only	.09	.09	.10	.11
No.	Description	1 1/2"	2"	2 1/2"	3"
1	Hinge Hanger with Extn. Bar & Lag Screw	\$.23	\$.25	\$.26	\$.31
7	Band Hanger Extn. Bar and Beam Clamp	.25	.28	.30	.31
13	Hinge Hanger, Socket and Beam Clamp	.37	.44	.45	.46
200	Band Hanger Only	.12	.14	.16	.17

Lag Screws—Beam Clamps & Beam Plates

No.	Description	Each	2" to 3"	Each
19	Flattened Lag Screw with Bolt—1/2" to 1 1/2"	\$.06	2" to 3"	\$.07
20	Threaded Lag Screw, no Bolt	.06	2" to 3"	.07
21	Beam Plate with Bolt	.05	2" to 3"	.06
22	Beam Clamp—Forged—with Bolt 1/2" to 1 1/2"	.16	2" to 3"	.20

KNOBS, TUBES & CLEATS, PORCELAIN

KNOBS

Type	Price Each	Without Screws
No. 5 1/2 Split Knobs	\$.01 1/2	\$.02
5 1/2 Solid Knobs	.03	.02 1/2
5 1/2 Nailit	.04	
5 1/2 Screwit	.04	
4 & 4 1/2 Knobs Solid	.05	.04
No. 9419 Split 1 1/2x1 1/2		.07
9420 Split 2x2 1/2		.12
22 Victor Split		.10
6061 Solid Teleph. 2 Groove		.10
6062		.12

TUBES

Diam.	Price Each	3" & under	4"	5"	6"	8"	10"	12"	14"	16"
1/2"	\$.01									
3/4"	.01 1/2									
1"	.02									
1 1/4"	.03									
1 1/2"	.04									
2"	.05									
2 1/2"	.06									
3"	.07									
3 1/2"	.08									
4"	.09									
4 1/2"	.10									
5"	.11									
6"	.12									
8"	.13									
10"	.15									
12"	.17									
14"	.24									
16"	.32									
18"	.40									
20"	.43									
22"	.47									
24"	.52									
26"	.54									
28"	.56									
30"	.58									
32"	.60									
34"	.62									
36"	.64									
38"	.66									
40"	.68									
42"	.70									
44"	.72									
46"	.74									
48"	.76									
50"	.78									
52"	.80									
54"	.82									
56"	.84									
58"	.86									
60"	.88									
62"	.90									
64"	.92									
66"	.94									
68"	.96									
70"	.98									
72"	1.00									
74"	1.02									
76"	1.04									
78"	1.06									
80"	1.08									
82"	1.10									
84"	1.12									
86"	1.14									
88"	1.16									
90"	1.18									
92"	1.20									
94"	1.22									
96"	1.24									
98"	1.26									
100"	1.28									
102"	1.30									
104"	1.32									
106"	1.34									
108"	1.36									
110"	1.38									
112"	1.40									
114"	1.42									
116"	1.44									
118"	1.46									
120"	1.48									
122"	1.50									
124"	1.52									
126"	1.54									
128"	1.56									
130"	1.58									
132"	1.60									
134"	1.62									
136"	1.64									
138"	1.66									
140"	1.68									
142"	1.70									
144"	1.72									
146"	1.74									
148"	1.76									
150"	1.78									
152"	1.80									
154"	1.82									
156"	1.84									
158"	1.86									
160"	1.88									
162"	1.90									
164"	1.92									
166"	1.94									
168"	1.96									
170"	1.98									
172"	2.00									
174"	2.02									
176"	2.04									
178"	2.06									
180"	2.08									
182"	2.10									
184"	2.12									
186"	2.14									
188"	2.16									
190"	2.18									
192"	2.20									
194"	2.22									
196"	2.24									
198"	2.26									
200"	2.28									
202"	2.30									
204"	2.32									
206"	2.34									
208"	2.36									
210"	2.38									
212"	2.40									
214"	2.42									
216"	2.44									
218"	2.46									
220"	2.48									
222"	2.50									
224"	2.52									
226"	2.54									
228"	2.56									
230"	2.58									
232"	2.60									
234"	2.62									
236"	2.64									
238"	2.66									
240"	2.68									
242"	2.70									
244"	2.72									
246"	2.74									
248"	2.76									
250"	2.78									
252"	2.80									
254"	2.82									
256"	2.84									
258"	2.86									
260"	2.88									
262"	2.90									
264"	2.92									
266"	2.94									
268"	2.96									
270"	2.98									
272"	3.00									
274"	3.02									

Make yourself



▲
C-H Porcelain Sockets give you these outstanding features: Time-saving method of fastening caps by single, "off-center" assembly screw; double lug on cap and large assembly screw prevent loosening or twisting and hold heavy reflector firmly regardless of vibration; long life mechanism and unusually good appearance. Interchangeable caps and bodies. Made in key, keyless, push-button and pull chain types. Approved by the Underwriters.

▲
C-H 3-wire Flush Receptacles are in keeping with the latest trend in wiring. The base is made of heat-proof Thermoplas—the clips of heavy phosphor bronze assuring positive contact and long life. The staked binding screws never loosen—and are large in size for strength and wiring convenience. C-H 3-wire Flush Receptacles meet Underwriters' requirements.



• SELL • COMPLETE • CONVENIENCE •

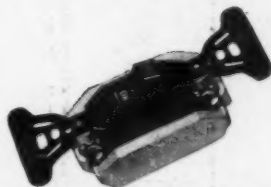
Wiring Headquarters for your community..

*Establish a Reputation As An Expert
Sell Complete Wiring . . . Both You and the
Builder Profit*

YOU have at your command a fund of *specialized experience* which you can use to establish yourself as wiring headquarters in your community.

Go to the builder, architect, owner, or realtor and offer to help in checking over his wiring plans, to make certain every job is completely wired. Your assistance will be welcomed—it will identify you as an expert to be consulted in wiring problems—will be remembered when the next contract is to be awarded.

For example, insist that plenty of lights and outlets be provided, particularly in basement and attic. Point out



C-H Toggle Flush Switches have time-saving installation features, such as large binding screws, right hand wiring, shallow construction to fit any standard box and "compression-spring", troublefree contact mechanism. Black or brown operating levers. Single and double pole, three and four way types. Approved by the Underwriters. Illustration is Catalog 7263 three-way.

the convenience of 3-way switches, the doubling of outlets by the use of Duplex receptacles. You will earn the maximum profit on every job and at the same time make the building more livable.

Protect your customer's good will by using high quality wiring devices of

known value. Cutler-Hammer offers a *complete* line—with a device for every wiring need. C-H Devices are convenient to wire—are built for long service—have the backing of a thirty year old reputation.

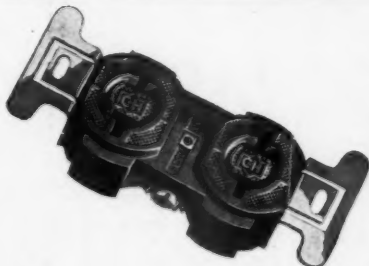
Write for the C-H Catalog. The complete C-H Line can be stocked from your wholesaler.

CUTLER-HAMMER, Inc.

Pioneer Manufacturers of Electrical Apparatus
1258 St. Paul Avenue MILWAUKEE, WISCONSIN

CUTLER HAMMER

MODERN WIRING  NECESSITIES



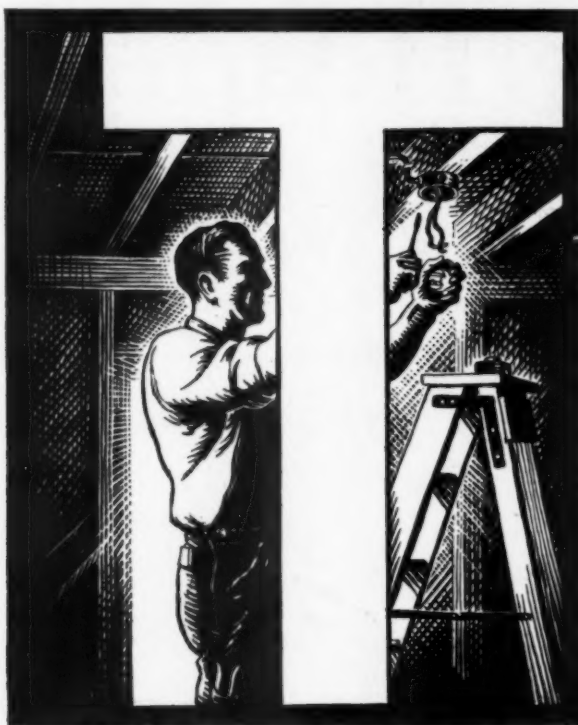
C-H Catalog 7920 Duplex Receptacles double the number of outlets at slight extra cost. Large binding screws and shallow construction make installation easy. Polarized slots, deep finding ring and one piece, double grip, smooth-plugging contacts make them easy to use. Black or brown finish. Approved by the Underwriters.

C-H Automatic Door Switch is especially convenient for lighting closets. Light turned on automatically when door is opened. Furnished in two types—with approved box for Loom, "BX" or Non-metallic, sheathed cable—or without box, but to fit any standard switch box, for rigid conduit work. Approved by the Underwriters.



♦ ♦ ♦ ♦ ♦ BUILD • GOOD • WILL ♦ ♦ ♦ ♦ ♦

(8774)



HE workmanship of

good contractors is best. One reason is that they PROTECT the quality

of their work by using A-A; just a matter of good judgment that builds

or maintains hard won reputations. • You've probably noticed that

GOOD contractors get the GOOD jobs; then use A-A, because it's RIGHT.

Approved and specified by leading architects and engineers.

A-A WIRE COMPANY

BRANCH OF GENERAL CABLE CORPORATION

Offices

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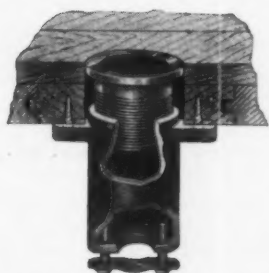
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"LATROBE" PRODUCTS

Your Jobber will gladly supply them



No. 300, Midget Floor Receptacle. For installation with sheathed cable, or for open or knob and tube wiring where baseboard outlets would require more labor to install. 2" diameter. Adjustable to all thicknesses of floor.



No. 100, Non Adjustable Watertight Floor Box. Cover 3 1/2" diameter. Brass stem nozzle but no receptacle for phone outlet or permanent connections.



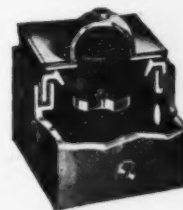
No. 110, Non Adjustable Watertight Receptacle Floor Box. All small parts eliminated. Merely connect wires. Has T-slot receptacle, bell-nozzle, 3 1/2" cover plate.



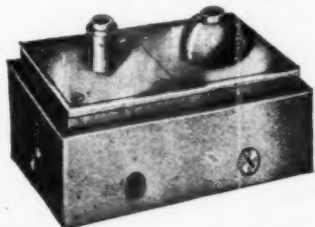
No. 120, Adjustable Watertight Floor Box without Receptacle. With or without brass nozzle for phone outlet or permanent connection. Cover sets flush with floor though concrete holds box body out of level. 3 1/2" diameter. 4 threaded conduit holes, 3 plugged.



No. 130, Adjustable Watertight Floor Box with T-slot receptacle installed at factory. Adjustable top sets flush and level with fire-proof floor. 3 1/2" cover plate.



No. 251, Square Adjustable Watertight Floor Box. Interchangeable covers. Room for several conduits in each side. Has receptacle and bell nozzle.



No. 252, 253, 254, Gang Adjustable Watertight Floor Boxes. Same as No. 251 shown above, but furnished in 2, 3 or 4 gang boxes with partitions between sections to separate high and low tension wiring.



No. 625, Conduit Bender. Bends 1/2" or 3/4" conduit merely by reversing movable jaw. Makes one less tool to carry and keep track of. Cannot slip nor kink conduit. Deep socket needs no coupling; gives full strength of 1" pipe handle. Clamp keeps handle from turning out; insures tight fit of under-size handle.



Keystone Fish Wire. Finest highly tempered steel; very springy and just the right stiffness. Put up in heavy cartons, 100, 150; 200 foot coils to a carton. Made in various widths.

Fullman Manufacturing Co.

1209-1215 Jefferson St., Latrobe, Pa.

Send Coupon for Copy of Code and Catalog

FREE

National Electric
Code and
Latrobe Catalog

Name.....
Address.....
City.....State.....
Jobber's Name.....City.....



PL-16

Molding

Plugs, Attachment

FITTINGS—Continued

No.	Description	Price Each	No.	Description	Price Each
420A&B	Spring Toggle Bolt	.05	Single Plates 447-48-50-		
420C		.09	451-61-91		\$.13
421	Lead Shield	.10	Two Gang Plates 452-62-92		.25
425A	Folding Strap	.02	Three 453-63-93		.46
426	Susp. Strap 2 Line	.04			
427	3	.05	441	Single Adaptor	.60
428A	Folding Strap	.03	442	Two Gang	1.00
430	Fixture Rosette	.60	500	Bushing	.03
434	Single Strap	.06	513	3 Gang Adaptor	1.50
435	Double Strap	.08	514	4	2.00
436	Coupling	.06	515	5	2.50
437	45 Deg. Elbow	.20	516	6	2.95
438	Sgle. Flush Box	.80	523	3	1.50
439	Surface Box	.70	524	4	2.00
439S		.75	525	5	2.50
440	Two Gang Surface Box	1.00	526	6	2.95
			2155	90 Deg. Connect	.35
			2156	90	.35

OVALDUCT

3 Wire.....Per Foot \$.18

OVALDUCT FITTINGS

No.	Description	Price Each
401	Box Connector with 3/4" Locknut	\$.15
2133	Squeeze Type Coupling 1 1/4" long	.18
2134	90 Degree Internal Elbow	.35
2135	45 Flat	.27
2156	90 Box Connector	.34
2159	Wire Toggle Fastener	.03
2161	Strap Fastener	.02
2181	Connector Ovalduct to Oval Knockout	.10
2662	Outlet Box 4 x 3/4	.21
2663	Extension Ring for Boxes	.20
2665	Outlet Box 4 x 3/4 with Fixture Stud	.28
2862	3 1/4 x 3/4	.20
2865	3 1/4 x 3/4 with Fixture Stud	.27
4170-S1	Sectional Switch Box 4 x 1 1/4 x 1	.38
4172-S1	Spacer for above box	.34

MOLDING, WIREMOLD

MOLDING

No. 500 2-Wire, price per ft.	\$.10
" 700 6-Wire, " " "	.12
Master Size, " " "	.25

FITTINGS

	For No. 500 2 Wire Size	For No. 700 4 Wire Size	For Master Size
Coupling	501 \$.04	5701 \$.04	1001 \$.06
Bushing	502 .04	702 .04	1002 .04
Supporting Clip	503 .06	5703 .06	
Strap	504 .04	704 .06	1005 .08
Connecting Cover	506 .04	706 .04	
Ground Coupling or Clamp	509 .12	5709 .12	1009 .30
90 Degree Flat Elbow	511 .22	5711 .22	1011 .45
45	512 .22	5712 .22	
Tee Plain	515 .36	5715 .36	
Cross Plain	516 .37		
Internal Elbow	517 .26	5717 .26	1017 .45
Elbow Pull Box		5717A .50	
External Elbow	518 .22	5718 .22	1018 .40
Corner Box	519 .37	5719 .45	
Narrow Fitting		5720 .55	
Show Case Fitting		5720A .45	
One Piece Rosette	521 .36	5721 .36	
Two Piece Rosette and Block	522 .50		
Fixture Rosette, 3/4"	523 .70		
3/4"	524 .65	5724 .65	
Receptacle Base	525 .70	5725 .70	
Keyless Receptacle	526 .90	5726 .90	
Attachment Plug	527 .90	5727 .95	
Utility Box		5728-29 .36	
Contact Block		5730 .30	
Blank Cover	531 .14	5731 .14	
Outlet Box, 2 1/4"	532 .45	5732 .45	
3"	533 .45	5733 .45	
Closed Extension Box		5734 .65	
Distribution Box		5735 .70	1035 1.08
Blank Cover	536 .16	5736 .16	
Extension Box, 4 3/4"	537 .65	5737 .65	
Fixture Box, 4 3/4"	538 .65	5738 .65	
6 3/4"		5739 & A .85	
Combination Box		5745 .70	
Switch or Recep. Box, Single		5747 .80	
" " " 2 Gang		5747-2 1.00	
" " " 3 Gang		5747-3 1.15	
Surface Box, Single		5748 .90	
" " " 2 Gang		5748-2 1.20	
" " " 3 Gang		5748-3 1.25	
Push Switch Box	549 1.00	5749 1.00	
Shallow	550 1.05	5750 1.05	
Adaptor Plate and Cover, Single	551 .70	5751 .70	
2 Gang	552 1.25	5752 1.25	
3 Gang	553 1.35	5753 1.35	
Box Connector	581 \$.34	5781 & A \$.34	
Conduit Coupling	582 .38	5782 & A .38	
Elbow Box Connector, 1/2" Male	583 .38	5783 .38	
Conduit Elbow, 1/2" Female	584 .38	5784 .38	
Combination Connector	585 .25	5785 .25	
Offset Connector		5786 .40	1086 \$.65
Openwork Coupling	588 .36	5788 .40	
Kick Plate			1087 .34

68

N-SUNDRIES

PIPE NIPPLES

Galvanized Wrought Iron

Size of Nipples and Price Each

Length	Size 3/4"	Size 1"	Size 1 1/4"	Size 1 1/2"	Size 2"	Size 2 1/2"	Size 3"
Close Nipples	\$.06	\$.06	\$.06	\$.07	\$.10	\$.14	\$.17
2" to 3 1/2" Long	.10	.10	.10	.12	.15	.28	.35
3 1/2" to 4"	.11	.11	.10	.14	.22	.30	.38
4" Long	.12	.12	.14	.17	.22	.28	.34
5"	.14	.15	.15	.17	.22	.28	.34
6"	.18	.18	.18	.21	.27	.34	.40
7"	.20	.20	.21	.23	.30	.37	.45
8"	.21	.21	.22	.25	.33	.40	.50
9"	.23	.23	.24	.27	.37	.45	.56
10"							

NOTE—Above prices are for ordinary galvanized pipe nipples as used by plumbers and steam fitters. If nipples have to be made up from conduit charge the foot price of conduit plus regular labor charge.

CHASE NIPPLES & COUPLINGS

Size	1/4"	3/4"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
Chase Nipples, each	\$.10	\$.10	\$.10	\$.15	\$.25	\$.30	\$.34	\$.48	\$.78	\$ 1.20
Couplings	.12	.12	.12	.14						

For Erickson Couplings, see Page PL-8.

CHASE MALE REDUCERS

CHASE FEMALE ENLARGERS

1/4" to 1/2" Reducer, each	\$.15	1/2" to 3/4" Enlargers, each	\$.15
1/4" to 1"	.20	1/2" to 1"	.20
1/4" to 1 1/4"	.40	1/2" to 1 1/4"	.30
		1/2" to 1 1/2"	.50

NAILS

Insulated

Millonite Insulated Nails, per dozen	\$.05
Leather Nail Heads,	.05
Staples Insulated,	.05

PLUGS, ATTACHMENT

ATTACHMENT PLUGS COMPLETE

	Price
Competition Plug	\$.10
Pony Composition	.15
Standard 1/2" Hole	.25
Bakelite	.35
Black or Brown	.40
Green	.40
Fawn or Grey	.40
Double T Slot Parallel Porcelain	.50
Composition	.55
Paraline Convertible	.45
Steel Covered Cap & Standard Base	.30
Brass	.55
Cord Grip	.40
Steel Covered Cap & Standard Base	.45
Polarized Standard Plug complete	.30
Heavy Duty Plug with Brass Cap	1.25
3 Wire Heavy Duty Plug with Composition Cap	.90
One Piece Attachment Plug Composition	.35
Benjamin 903	.20

CAPS ONLY

For Attachment Plugs

Parallel Pony Cap Composition	\$.10
Standard Cap Composition	.10
Metal Covered Composition	.20
with Cord Grip	.30
Met. Cov. Composition	.50
Knostrain Composition	.40
Brass Covered	.90
Bakelite Black or Brown	.15
Polarized Standard	.15
Brass Covered	.40
Tandem Blades Standard	.25
Steel Covered	.50
with Cord Grip	.30
Steel Covered with Cord Grip	.50
Knostrain Composition	.55
Brass Covered Composition	.95

Reynolite Han-D-Cap No. 470—\$.30 No. 480—\$.35.

Note for other caps see Page PL-17.

ELECTRICAL CONTRACTING

Plugs, Attachment

BODIES ONLY

Attachment Plugs

Pony Composition Body only.....	\$.10
Standard .....	.18
Bakelite .....	.20
Black or Brown.....	.25
Red-Green-Orange.....	.45
Heavy Duty Polarized Porcelain.....	.50
3 Wire .....	.50

Flasher Plugs

Diamond Flasher Button.....	\$.60
Skeedoodle Flasher Plug 60 Watts—\$1.50. 100 Watts.....	2.00

PLUGS, APPLIANCE

Make	Number & Description	Price Each
American Beauty	.803 Plug Complete for Small Irons.....	\$.60
"	" " " Large Irons.....	1.35
"	" " " Toasters & Stoves.....	.25
Arrow.....	.6510 " " " with Switch.....	.85
Beaver.....	See Gripall & Suitzall.	
Bryant.....	.668 Plug Complete with Switch.....	.85
"	.752 " " " Shorter than 668.....	.65
Cutler-Hammer.....	.7051 Plug Complete with Switch.....	.60
Dover.....	.13 Sp Connector Plug for 3½ & 6 lb. Irons.....	.50
"	.13 Switch Plug Complete.....	1.00
Fitsall (Rodaile).....	P-21 Competitive Plug, no Switch.....	.20
Gripall (Beaver).....	F1 Super Type Adjustable Contacts.....	.45
"	" F1 " Nickel Alloy.....	.55
"	" F5 " Armored Casing.....	.55
"	" F6 " " Nick. Alloy Contacts.....	.60
"	G1 Gripall Switch Plug with Switch.....	.90
"	G21 " Competitive Type with Switch.....	.45
Hemco.....	.250 Heater Plug, no Switch.....	.55
Hotpoint.....	CD6P1 Iron Plug.....	.45
"	CD69P1 " " " Armored.....	.60
"	CD79P1 " " " with Switch.....	1.00
Hubbell.....	.7020 Appliance Switch Plug.....	.90
Kool-Pull (Colts).....	" Appliance Plug, no Switch.....	.75
"	" " " with Switch.....	1.00
Liberty.....	.932 Heater Plug.....	.35
Plugall.....	.9 Appliance Plug with Spring.....	.30
"	.700 " " Switch.....	.85
Propp.....	.6—One 4 All Appliance Plug, no Switch.....	.35
"	.55 Standard Iron Plug, no Switch.....	.25
"	.56 Armored.....	.55
"	.52 Iron Plug with Switch.....	.55
P & S.....	.1550 Appliance Switch or Pendant.....	.90
Reynolite.....	.500 Reynolite Connector Plug, no Switch.....	.50
"	.510 " " " with Switch.....	.85
Rodaile.....	P-67 Quality Iron Plug, no Switch.....	.25
"	P-23 Armored.....	.40
"	P-29 " " " Bronze Contacts.....	.30
"	P-15 Iron Plug with Switch.....	.60
"	.800 Armored Plug with Toggle Switch.....	.90
Security.....	.151 Security Appliance Plug, no Switch.....	.40
Simpler.....	.800 Armored Appliance Plug, no Switch.....	1.00
Suitzall (Beaver).....	F2 Suitzall Plug Contact Clips.....	.25
"	F22 " Regular Binding Screws.....	.25
Sunbeam.....	Heater Plug.....	1.50
Torrid.....	.503 & .505 Appliance Plug, Variable Heat Con.....	2.00
Uitilo.....	.1500 Utילו Appliance Plug, no Switch.....	.20
Westinghouse.....	.299423 Plug Complete, no Switch.....	.75
"	.373656 " " " with Switch.....	1.00
White Cross.....	White Cross Heater Plug, no Switch.....	.50
"	" " " with Switch.....	.90

PANEL BOARDS OR FUSE CABINETS

BULLDOG FUSINTERS

No.	Description		2	4	6	8	12
CBS	Surface		Circt.	Circt.	Circt.	Circt.	Circt.
BOS	"	Black Finish with ins d shield	\$1.85	\$ 2.35	\$ 3.95	\$ 7.10	\$10.40
BF	Flush	Black F nish without Sh eld	1.70	2.20	.....	.....	.....
BBF	"	Luminized Finish	2.50	3.75	5.40	8.80	11.80
BSF	"	Black F nish	2.00	2.75	4.75	.....	.....
BSS	"	Lum. Finish with Toggle Sw tches	.....	6.65	10.00	13.30	20.00
BSS	"	Lum. Finish with one 30 A. Safetofuse	.....	20.60	22.00	32.00	35.25
BSS	"	Lum. Finish with one 60 A. Safetofuse	.....	21.60	22.50	32.35	35.65
BKF	"	Lum. Finish Com- bined Fusenter & Pull Box	.....	6.65	10.00	15.00	20.00

Combinations—For Resale Prices on all other Fusenter Combinations deduct 17% from Bulldog Co.'s List Prices.

FUSE CABS

All Steel Equipment Co., Aurora, Ill.

Style & No.	Description	2 Circ.	4 Circ.	6 Circ.	8 Circ.	12 Circ.
C-702-46	Surface Small Type	\$1.75	\$ 2.45	\$ 3.75	.....	.....
C-902-46	Surface Small Type	2.20	2.85	4.95	.....	.....
Series D	Surface Type Sgl. Fuse					
3004 to 3074	Not for Branch Switch Flush Type	.....	3.20	5.10	\$ 7.50	\$10.10
3034 to 3094	Not for Branch Switch. Surface Type Dbl.Fuse	.....	3.75	5.60	9.00	12.10
4002 to 4012	Not for Branch Switch. Fush Type Dble. Fuse	3.20	5.10	10.10	23.00	36.00
4022 to 4032	Not for Branch Switch. Flush or Surface-Sgle.	3.75	9.00	12.10	27.00	45.00
Series DS	FuseTrims for Tog. Sw.	....	6.90	9.25	13.80	21.00
3300 & 4300	Flush or Surface-Dble. Fuse Trims for Tog. Sw.	6.90	9.25	21.00	34.50	70.00

TRUMBULL—CIRCLE T
Residence Panel Boards

		4	6	8	10	12
		Circ.	Circ.	Circ.	Circ.	Circ.
Surface or Flush Mounting						
Single	No. 3104 to 3212 Flush Mtg.					
Fusing	or 2906 to 2912 Surface Mtg.	\$2.85	\$ 4.60	\$ 9.75	\$11.30	\$13.00
Double	No. 3404 to 3412 Flush Mtg.					
Fusing	or 2704 to 2712 Surface Mtg.	\$9.15	12.45	18.25	23.25	26.60

TRUMBULL-VANDERPOEI.
Fuse Panels—For Flush Mounting

		2	4	6	8	12
Number of Circuits						
Black Enamel Finish	No. 2B to 12B	\$1.00	\$2.60	\$4.70	\$8.25	\$10.25
Aluminum Finish	No. 2A to 12A	2.45	3.45	5.40	8.70	11.70

SQUARE D Fuse Cabinets

Series 37000 to 39000	2	4	6	8	10	12
Flush Ser es 37000 Black	Circt.	Circt.	Circt.	Circt.	Circt.	Circt.
" " 37000 Aluminum	\$1.85	\$2.50	\$4.50	\$7.00	\$9.60	\$11.25
Surface Series 39000 1" l.ack	2.35	3.35	5.20	8.30	10.00	11.25
	1.85	2.50	4.50	7.00	9.60	11.25

NOTE: 2 & 4 Circuit Flush Type are also available with channels for Lath Ends for mounting direct to front side of studding. For these cabinets add to Resale Price each

	\$0.20
--	--------

WESTINGHOUSE

Junior Residence Type

	2	4	6	8	10	12
	Circt.	Circt.	Circt.	Circt.	Circt.	Circt.
Galvanized or Gray Box Junior Residence Panels						
No. K-64012-21 & 64052-61	\$1.70	\$2.50	\$4.50	\$6.65	\$7.90	\$10.00
Junior Branch Fuse Attach						
No. K-62395 & 62399	1.75	2.60	.....	.....	.....	.....
Junior Building Panels for Togg e Switches						
No. K-64034-42 & 64074-81	.....	6.65	10.00	13.30	15.60	20.00

DIAMOND PANELETTES

Surface Type				Flush Type			
No.	Circuits	Size	Price	No.	Circuits	Size	Price
B-4	4	7x7 x3	\$2.15	F-4	4	8x10 1/2 x3 1/2	\$ 3.30
-4	4	8x10 1/2 x3 1/2	2.50	F-6	6	8x12 x3 1/2	4.25
-6	6	8x12 x3 1/2	3.30	F-8	8	8x13 1/2 x3 1/2	4.45
-8	8	8x13 1/2 x3 1/2	6.85	F-10	10	8x15 1/2 x3 1/2	9.75
-10	10	8x15 1/2 x3 1/2	7.40	F-12	12	10x18 x3 1/2	11.15
S-12	12	10x18 x3 1/2	9.90	.....	.....	.....	.....

Toggle Flush Type

No. of Circuits.....	4	6	8	10	12
Cat. Number.....	FS-4	FS-6	FS-8	FS-10	FS-12
Price.....	\$6.00	\$9.90	\$14.85	\$17.30	\$19.80

P-SUNDRIES

RUNNING THREAD, PIPE

Price per Foot.....	$\frac{1}{8}$ " \$.25	$\frac{1}{4}$ " \$.30	$\frac{3}{8}$ " \$.35	$\frac{1}{2}$ " \$.45
---------------------	--------------------------	--------------------------	--------------------------	--------------------------

SOLDERING PASTE

(Also on Page PL-25.)

Make	2 Oz. Cans	2 Oz. Tubes	4 Oz. Cans	Half Pound	One Pound Cans
Allen.....	\$.30	\$.40	\$.55	\$.90	\$1.50
Burnley.....	.20	.20	.30	.40	.70
Crescent.....	.25	.25	.35	.55	1.00
G. F.....	.20	.20	.25	.40	.70
Highland.....	.30	.30	.40	.80	1.50
Nokorode.....	.20	.20	.30	.80	1.50

PAINT & VARNISH

Insulating

Make	Per Pint	Per Quart	Per Half Gallon	Per Gallon
Armamac.	\$.55	\$1.00	\$1.75	\$3.00
Ajax Varnish No. 25	.40	.75	1.35	2.20
Enamel.	.40	1.35	2.20	3.00
S. P. Black or Clear	.45	.80	1.45	2.60
Lustora	.40	.75	1.35	2.20
Voltolec Quick Drying	.40	.75	1.35	2.20
W. P. Black Insulating	.40	.75	1.35	2.20
P. & B. No. 2 Paint	.55	1.00	1.75	3.00
Pothead Compound, per Pound				\$.55

For Pipe Straps, see Page PL-25. For Solder, Sticks, etc., Page PL-23.

PLATES & PLUGS, RECEPTACLE

PLATES

For Flush Receptacles

	.040 Thick		.060 Thick	
Brass	Sprayed	B. Brass	Sprayed	B. Brass
Stand. Recep. Plate Single or Duplex	\$.15	\$.20	\$.20	\$.30
* Lift. Cover Pl. Single or Duplex			.40	.45
* Lift.Cov.2 Gang Single or Duplex			.65	.75
Disappearing Door Plate Single				.70
* " " " Duplex				1.10

For Receptacles	
Brass Combination Plate-1 Switch-1 Recept. or Duplex .040 Brass.....	\$.60
" " " " " " " ".06075
Bakelite or Composition Plate Single or Duplex Each.....	1.00
" " " " " " " " 2 Gang Combination Plate Each.....	.20
Guth Porcelain Plate for Single or Duplex Receptacle.....	.40
Mirror Glass Single Plate \$2.00—Duplex \$3.00—3 Gang.....	.30
Bryant Wood Inlaid One Gang For Single or Duplex Receptacle.....	4.00
" De Luxe All Metal.....	2.25
Hubbell Bakelite Screwless Plate.....	.85
" " Brass Single Plate for 10 & 20 Amp. Recep. #5548.....	.30
" " " " " " " " 30 Amp. Receptacle 7072 & 7114.....	1.35

Standard Types	Price
Pony Parallel Blades Composition.....	\$.10
Standard.....	.10
Standard Bakelite Parallel Blades Composition.....	.20
Tandem.....	.25

E.T.C.		
Disappearing Door Plug Composition		\$.65
Brass Covered		1.00
Parallel Blades Brass Covered		.40
Cord Grip Composition		.30
" " Steel Covered		.30
" " " " " "		.50
" " Knostrain Composition		.40
Brass Covered		.90
Polarized Blades Standard Composition		.15
" " Brass Covered		.40
" " Cord Grip		.50
" " 20 Amp.		.90
" " 20 " "		.50
" " 10 " 3 Wire Composition		.40
" " 10 " " " " " "		.55
" " 20 " " " " " "		1.00
" " 30 " 2 " " " " " "		1.75
Tandem Blades Std. Composition		.25
" " Brass Covered		.50
" " Cord Grip Brass Covered		.50
" " Knostrain Composition		.55
" " Brass Covered		.95

Without Plate		Plates Extra		Price
Shallow	Comp. Side Wired	Single	\$.25
"	"	Duplex35
"	Perf.	Single25
"	"	Duplex35
Deep	Comp. Top	Single45
"	"	Duplex65
"	Perf.	Single45
"	"	Duplex65

					Price
For Lift Cover Plate Single.....					\$.55
Duplex80
xWith Rd. Met. Cvr. For 3½ Box Single.....					.90
" " " Duplex.....					.45
" " " 4 Single.....					.35
" " " 4 Duplex.....					.60
xWith Rd. Brass Plate Small Single.....					1.25
Large.....					1.85
Edison Screw Base Recp. Single.....					.25
Disappearing Door Recp. Single.....					.75
Duplex.....					1.10
Screwless Plate Recp. Single.....					.30
Duplex.....					.45
10 Amp. Polariz. For 2 Wire Single.....					.65
20 " " " "					1.30
30 " " " "					2.00
10 " " 3 " "					1.45
20 " " 3 " "					1.60
30 " " 3 " "					4.75

[illegible]

Univ. No.	G. E. No.	Type	Price
994	2258	Insulated Chain and Cord	\$.65
995	2259	8" Chain55
996	2260	Cord Only50
997	2263	8 Inches of Insulated Chain60
998	2287	Short Chain and Cord60
999	3 Feet of Chain80

Symbol: Column No. 1—Number of Alabax Fixture.
Column No. 2—Resale Price Standard White Glaze Finish.
Column No. 3—Resale Price All Over Color B-D-E-F-G-H-J-K-L-M.
Column No. 4—Resale Price Stripe Decoration No. 1A-2A-4A.

Column No. 1 Number	Column No. 2 White	Column No. 3 Color	Column No. 4 Stripe	Column No. 1 Number	Column No. 2 White	Column No. 3 Color	Column No. 4 Stripe
AL 844	\$3.30	\$3.80	.....	AL 985	\$1.20	\$1.50	\$1.65
845	3.60	4.05	.....	989	1.85	2.15	2.30
846	3.85	4.30	\$4.80	990	1.90	2.20	2.40
847	4.15	4.60	5.05	1208	2.20	2.45	2.65
848	1.85	2.15	2.30	1201	2.50	2.75	2.95
849	2.30	2.60	2.75	1202	2.20	2.45	2.65
850	2.30	2.60	2.75	1203	2.50	2.75	2.95
851	1.40	1.65	1.85	1273	.45	.60	.70
852	3.30	3.75	4.20	1274	.80	.90	1.00
853	3.60	4.05	4.55	1275	.85	1.00	1.10
859	1.85	2.15	2.30	1276	.15	.30	.40
863	1.85	2.15	2.30	1300	2.80	3.10	3.25
864	2.75	3.20	3.65	1301	2.80	3.10	3.25
865	3.05	3.50	3.95	1349	2.60	2.90	3.10
866	2.75	3.20	3.65	1350	2.60	2.90	3.10
867	3.05	3.50	.....	1351	1.70	1.95	2.15
869	2.50	2.75	2.95	1369	2.75	3.05	3.25
870	2.50	2.75	2.95	1370	2.75	3.05	3.25
871	1.55	1.80	2.00	1371	.85	2.15	2.30
872	3.30	3.80	4.20	1449	2.70	2.95	3.15
873	3.60	4.05	4.50	1450	2.70	2.95	3.15
875	2.30	2.60	2.75	1451	1.75	2.05	2.25
898	.95	1.20	1.40	1469	2.85	3.10	3.30
919	1.65	1.90	2.10	1470	2.85	3.10	3.30
920	1.65	1.90	2.10	1471	1.95	2.20	2.40
921	.70	.95	1.15	1475	2.85	3.10	3.30
922	1.65	1.90	2.10	1476	2.85	3.10	3.30
923	2.30	2.60	2.75	2371	1.90	2.15	2.35
924	2.00	2.25	2.45	2469	3.20	3.65	4.10
929	1.95	2.20	2.40	2471	2.75	3.20	3.65
930	1.95	2.20	2.40	2669	4.40	4.85	5.30
949	2.00	2.30	2.45	2671	4.00	4.40	4.85
950	2.00	2.30	2.45	2846	3.85	4.30	4.75
951	1.05	1.35	1.55	2847	4.15	4.65	5.05
952	1.95	2.20	2.40	2852	3.30	3.75	4.20
960	1.00	1.30	1.45	2853	3.60	4.05	4.50
962	2.00	2.30	2.45	2864	2.75	3.20	3.65
969	2.15	2.45	2.60	2865	3.05	3.50	3.95
970	2.15	2.45	2.60	2872	3.30	3.75	4.20
971	1.25	1.50	1.70	2873	3.60	4.05	4.50
980	1.50	1.75	1.95	9826	1.95	2.25	2.40
981	1.40	1.70	1.85	9836	1.90	2.20	2.35
982	1.70	1.95	2.15	9896	2.15	2.40	2.60
983	1.65	1.90	2.10	9906	2.20	2.45	2.65
984	1.25	1.55	1.75				

The above Prices do not include Glassware or Lamps.

Edison Base				Universal	Price
Description		All Keyless	Number		
Pony Cleat Receptacle Side Screws.		No S. H. Groove....	50715		\$.15
Round	Center	" " " " " " " " " " " "	9171		.20
Standard Cleat	Side	" " " " " " " " " " " "	9402		.30
		With	4013		.40
Oblong		" " " " " " " " " " " "	58300		.55
Concealed	Round Base	" " " " " " " " " " " "	4001		.55
		With Removable Ring..	50744		.55
Oblong Receptacle for Wood Molding with S. H. Groove....			4026		.65
Miniature or Candelabra Small Type.....			9445-6		.20
	Extended		366-7		.25
Mogul P & S. 520, Arrow 5012, GE 1194, Hubbell 3464, Weber 1422					.85

		Price
10 A. Small T Slot Concealed	2 Wire.....	\$.50
10 A. Small T Slot Cleat	2 ".....	.50
10 A. Small For Wood Molding	2 ".....	.50
10 A. Polarized Cleat	2 ".....	.65
10 A. Polarized Concealed	2 ".....	.65
10 A. Polarized Wood Molding	2 ".....	.70
10 A. Fielding Receptacle	2 ".....	.55
10 A. Polarized Concealed	3 ".....	.85
20 A. Polarized Cleat	2 ".....	.75
20 A. Polarized Concealed	2 ".....	.75
20 A. Polarized Wood Molding	2 ".....	.85
20 A. Polarized Concealed	3 ".....	2.00

10 Amp. Receptacle.....	Price
10 Amp. ".....	\$.50
10 Amp. ".....	.58
10 Amp. " with Covered Ter.....	.55
20 Amp. " Polarized.....	.75
10 Amp. 3¼ Porcelain Single.....	.45
20 Amp. 3¼ ".....	.60
10 Amp. 4 " Single.....	.60
10 Amp. 4 " Duplex.....	.70

With Metal Cover for 3 $\frac{1}{8}$ " Box.....	\$.25
" " " " " " " "	.30
" " " " " " " "	.36
" " " " " " " "	.42
Weatherproof.....	.48
All Porcelain for 3 $\frac{1}{8}$ " Box.....	.40
Brass Covered Keyless for 3 $\frac{1}{8}$ x 4" Box.....	1.00
Brass Covered Pull Chain for 3 $\frac{1}{8}$ x 4" Box.....	2.00

HEAVY DUTY & REFLECTOR SOCKETS—Continued

Reflector Sockets Porcelain $\frac{1}{4}$ — $\frac{1}{2}$ or $\frac{3}{4}$	
Keyless with X Type Fitting 4605-9-51-50 & 65	\$1.20
Self Lock Socket with X Fitting 4528-29-32-33	1.70
Shock Absorbing Socket with X Fitting 4676-77-78-80-81	1.60
Self Locking with Fitting 4548-9-50-52 & 53	2.00

SWITCHES, FLUSH TUMBLER

Plates & Boxes Extra		Price
Square Handle Porcelain Cup—Sgl. Pole		\$.35
" " " " Dble.		1.00
" " " " 3 Point		.50
" " " " 4		3.15
" " Composition Cup—Sgl. Pole		.85
" " " " Dble.		1.35
" " " " 3 Point		1.00
" " " " 4		3.45
Round Handle Porcelain Cup—Sgl.		.35
" " " " Dble.		1.00
" " " " 3 Point		.50
" " " " 4		3.15
" " Composition Cup—Sgl.		1.10
" " " " Dble.		1.50
" " " " 3 Point		1.40
" " " " 4		3.45
New 2 Circuit Type Duple-Twin-Duplex, Multitoggle, etc. 2		1.15
" " " " Triple-Triple-Triplex Multitoggle, 3		1.50
" " " " Single & 3-Way Type		1.35
Lock Type Porcelain Cup—Sgl. Pole		1.30
" " " " Dble.		1.85
" " " " 3 Point		1.55
" " " " 4		3.85
EXTRAS—For Luminous Tip add for Each Handle		\$.40
For Glo Guide Handle Switches add for Each		1.00

TUMBLER SWITCH COMBINATIONS

With Plates		Price
Bryant 2957-2979 One Tumb. Sw.—One Flush Recep. Brass or Temp. P.		\$2.00
" 2959 " " " " Pilot Light .060 Plate		3.00
H & H 8887 " " " " Bulls Eye .060		3.25
" 8809 " " " " Recept. Bulls Eye Solid		5.45
" 8805 " " " " Duplex		5.75
H & H 8974 One tumb. sw. and one Con. Outlet		2.00
Hubbell 7163 & 7164 Switch Tap Combination No Plate		2.15

PLATES
For Tumbler Switches

		1	2	3	4
		Gang	Gang	Gang	Gang
Stamped Brass Sprayed Finish .040 Thick		\$.15	\$.30	\$.45	\$1.35
" " " " Brush Brass .040		.20	.40	.60	1.55
" " " " Sprayed .060		.20	.40	.60	1.70
" " " " Brush Brass .060		.30	.60	.90	1.85
Bakelite or Composition Molded		.20	.40	.60	.80
Twin & Triple Struck Up Plates			.30	.30	
" " Solid Brass			.50	.50	
Hubbell Bakelite Screwless Plates		.60	1.10	1.60	
Bryant DeLuxe Wood Inlaid any Finish		2.35	4.10	6.60	
" " All Metal		.85	1.50	2.10	
Guth Porcelain Enamel Plates		.30	.65	1.00	
Glass Mirror Plates		1.00	1.75	2.50	3.25
Combination Switch & Receptacle Plate Molded					.40
" " Brass .040 thick					.50

SWITCHES, FLUSH PUSH

Plate & Boxes Extra		Price
Standard Shallow Type Porcelain Cup—Single Pole		\$.35
" " " " Double		1.10
" " " " 3 Point		.50
" " " " 4		3.15
Deep Type Porcelain Cup—Single Pole		.70
" " " " Double		1.15
" " " " 3 Point		1.15
" " " " 4		3.15
Special Composition Cup—Single Pole		1.15
" " " " Double		1.50
" " " " 3 Point		1.60
" " " " 4		3.15
Lock Type Porcelain Cup—Single Pole		1.45
" " " " Double		1.85
" " " " 3 Point		1.85
" " " " 4		3.85
Electroler Non-Indicating		1.75
" " Indicating		1.90
Extra for Luminous Button Add Per Switch		.40

PUSH SWITCH COMBINATIONS

With Plates		Price
Bryant 117 D. P. Indic. Switch Flush Receptacle & .060 Plate		\$2.00
413 One Push Switch—Bulls Eye and Solid Plate		4.25
318 " " Disap. Door Recp. Bulls Eye—Solid Plate		7.50
465 " " D. P. Flush Switch & Pilot Lamp .060 Plate		3.50
467 " " Flush Switch—Flush Recep.—Bulls Eye—Solid Plate		5.75
558 " " Duplex		6.30
H & H 3752 " " Bulls Eye—Solid Plate		4.25
3759 " " Duplex Recep. Solid Plate		5.50
8810 " " Single		5.30

PLATES

For Flush Push Switches

		1	2	3	4
		Gang	Gang	Gang	Gang
Stamped Brass Sprayed Finish .040 Thick		\$.15	\$.30	\$.45	\$1.35
" " " " Brush Brass .040		.20	.40	.60	1.55
" " " " Sprayed .060		.20	.40	.60	1.70
" " " " Brush Brass .060		.30	.60	.90	1.85
Bakelite or Composition		.20	.40	.60	.80
Hubbell Bakelite Screwless		.60	1.10	1.55	
Bryant DeLuxe Plates Wood Inlaid		2.35	4.10	6.60	
" " All Metal		.85	1.50	2.10	
Guth Porcelain Plates		.30	.65	1.00	
Glass Mirror Plates		1.00	1.75	2.50	3.25
Combination Push & Receptacle Plates .060 Brass					.50
" " Molded					.40
" " Guth Enameled					.65
" " Mirror Glass					1.75

SWITCHES, SURFACE SNAP

METAL COVERED SNAP SWITCHES

Poles	Volts	Type	Size	5 Amp.	10 Amp.	20 Amp.	30 Amp.
Single	125	Non-Indicating	Pony	\$.35			
"	"	Indicating	"	.40			
"	"	Non-Indicating	Standard	.55	\$.75	\$1.45	\$2.10
"	"	Indicating	"	.65	.85	1.60	2.20
Double	250	Non-Indicating	"	.90	1.10	2.20	2.55
"	"	Indicating	"	1.05	1.15	2.40	2.70
Triple	"	Non-Indicating	"		2.80	3.60	4.35
"	"	Indicating	"		3.00	3.75	4.50
3-Way	125	Non-Indicating	"	.90	1.25	2.25	2.70
4-Way	250	Non-Indicating	"	1.30	2.85	6.00	
Electroler	"	Non-Indicat. 110V.	"	1.35	1.35	2.10	
"	"	Indicating 110V.	"	1.50	1.50	2.25	

ALL PORCELAIN SNAP SWITCHES

Poles	Volts	Type	Size	5 Amp.	10 Amp.	20 Amp.	30 Amp.
Single	125	Non-Indicating	Pony	\$.50			
"	125	Indicating	"	.55			
"	125	Non-Indicating	Standard	.65	\$.85	\$1.60	\$2.40
"	125	Indicating	"	.70	.95	1.75	2.55
Double	250	Non-Indicating	"	.95	1.20	2.45	2.85
"	250	Indicating	"	1.10	1.35	2.60	3.00
3-Way	125	Non-Indicating	"	.95	1.35	2.60	3.00
4-Way	125	Non-Indicating	"	1.60	3.00		
Electroler	"	Non-Indicating	"	1.55	1.55		
"	"	Indicating	"	1.70	1.70		

TUMBLER OR TOGGLE SNAP SWITCHES

		Metal	Double	3 Point	4 Point
		Single Pole	Pole	Pole	Point
125-250 Volt					
5 Amp. Closed or Slott. Base		\$.35	\$.85	\$.80	\$1.40
10		.80	1.10	1.25	

SNAP SWITCHES FOR WOOD MOLD, CONDULETS, ETC.

		Metal Covered	Non-Indicating	All Porcelain	Non-Indicating
		5 Amp. 125 Volts	Indicating	Indicating	Indicating
Single Pole		\$.65	\$.60	\$.75	\$.70
Double		1.10	1.05	1.20	1.15
Three Point		1.10		1.20	
Electroler		1.40	1.40		

PARTS FOR SNAP SWITCHES

		Price
Handles—Standard Type Each	\$.12—Ratchet Type	\$.18
Bases—Porcelain 5 Amp. \$.12—10 Amp. \$.15—20 Amp.		.30
Covers—10 Amp & Under Metal \$.15—Porcelain		.20
Over 10 Amp.	.30	.30

SWITCHES, PULL CORD, CHAIN, CANOPY, LEVOLIER, ETC.

PULL CORD SWITCHES

Complete With $\frac{1}{4}$ Cap, Small Socket Type

		Price
Ceiling—Bottom Pull Complete	With $\frac{1}{4}$ Female Brass Cap	\$1.00
Wall—Side Pull		1.00
Rosette—Side Pull		1.00
Fixture—Bottom Pull		1.25
Deduct for Base only without $\frac{1}{4}$ Brass Cap		.10
Add for $\frac{1}{4}$ Brass Cap on any of above Switches		.20
" " Small Concealed Base of above Switches		.10
" " Cleat		.30
" " Base to Fit $3\frac{1}{4}$ Box of above Switches		.50
" " " " 4		1.00
" " Wood Moulding Base of above Switches		.25
" " Angle Base		.30

HEAVY DUTY PULL CORD SWITCHES, METAL COVER
With 8 Feet Heavy Cord

		Price
S.P. with Small Porc. Slotted or Solid B.		\$1.65
D.P.		1.85
3 Pole		1.85

These switches can be furnished with side or bottom open, at same price.

TYPE "O" PULL SWITCHES

For Ceiling Fixtures or Ceiling Fans

Single or Double Pole—3 & 4 Point Electrolier & Motor Control—Similar to Bryant #2473 to 2480 with 3/4 Caps, cord & Ball Each.....\$1.90

CANOPY SWITCHES

Snap or Tumbler Canopy Switches any style any make (except below).....	Price \$.40
Pull Type P & S—3316 or 17—Arrow 340—Bryant 666.....	.95

LEVOLIER PULL SWITCHES
McGill Co.

Two-Lite Canopy or Fixture Switch #50-51-52.....	\$1.00
Link Switch #59.....	1.00
Conduit Box & Fixture Switch #61-62 & 63.....	1.00
Switch Hickey 64 & 64 A for above.....	.15

PENDANT SWITCHES

With Brass Pendant Cap

With Brass Pendant Cap		Price
Brass Shell Pend. Cap	Side Button.....	\$.60
"	" Bottom ".....	.80
" Type "O" "	" " ".....	1.90
All Porcelain	Side ".....	.60
	(10 Amps) ".....	.75

FEED THROUGH SWITCHES

FEED THROUGH SWITCHES		Price
Nickel Feed Thru Switch.....		\$.50
Composition Feed Thru Switch.....		.50

DOOR SWITCHES

Door Switch without Box.....	Price \$3.50
Box Extra.....	.50

DOOR SWITCHES & OPENERS

#9	Door Opener	Mortise Type	\$ 2.75	#152 Rim Type Flush.....	\$ 6.10
48	"	"	31.25	Arranged for Surface Conduit..	25.25
48A	"	"	34.25	154 Mortise Type.....	5.75
50	"	Rim	31.25	153 Plate Type.....	7.15
50A	"	"	34.25	174 Door Switch.....	8.65
51	"	Plate	34.25	Box for above #2000.....	1.30
51A	"	"	35.25	1541 Opener Mortise Type....	10.50
52	"	Mortise	38.25		
Latch for #52			3.55		

Partrick & Wilkins commonly used types

Partrick & Wilkins commonly used types

Mortise Type.....	\$3.50	Rim Type.....	\$6.50
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SWITCHES, KNIFE, ENTRANCE & PANEL

ENTRANCE & PANEL SWITCHES
30 Amp. 125 Volts, Plug Fused

[illegible]

BABY KNIFE SWITCHES

Any Make

Any Make		Porcelain Base 125 Volt		Slate Base 250 Volt	
		15 Amp.	30 Amp.	15 Amp.	30 Amp.
Single Pole	Single Throw	\$.50	\$.60	\$.55	\$.70
	Double "	.85	1.05	.95	1.25
Double	Single "	.55	.70	.70	.85
	Double "	1.05	1.25	1.25	1.50
Triple	Single "	1.25	1.55	1.45	1.85
	Double "			1.95	2.50

TYPE "C" KNIFE SWITCHES
Slate Base Front Connected

		Not Fusible				Fusible			
		250 Volts DC and 500 Volts AC				250 DC and AC			
Sgls.	Throw	30 A.	60 A.	100 A.	200 A.	3 Pole	4 Pole	3 Pole	4 Pole
"	"	30 A.	\$1.05	1.72	2.60	3.40	\$1.20	1.75	2.60
"	"	60 A.	1.20	2.00	3.00	3.90	1.90	3.00	4.35
"	"	100 A.	2.40	4.00	5.05	8.00	3.85	5.85	8.80
"	"	200 A.	4.35	7.20	10.80	14.40	7.05	10.80	16.10
Dble.	Throw	30 A.	1.85	2.75	4.25	6.10	2.35	3.50	5.60
"	"	60 A.	2.10	3.20	5.00	7.05	3.85	5.50	8.70
"	"	100 A.	4.75	7.20	11.00	15.70	8.25	11.80	19.00
"	"	200 A.	7.75	12.00	18.50	24.80	15.80	20.75	32.00

June, 1929

**SWITCHES, RESIDENCE, METER
SERVICE, INDUSTRIAL, ETC.**

SMALL SERVICE ENTRANCE SWITCHES

30 Amp. "Square D" Switches Residence Type

Numbers	Volts	Description	2 Pole	3 Pole
97211-97311	125	For Plug Fuse Solid Neut.	\$1.65	\$2.60
99211-99311	125	Neut. Fused	1.65	3.00
78211-78311	125	" " Meter Test.	2.55	4.10
1211	125	Porc. Entr. Switch	1.80	
97251-97351	250	Encl. Fused Solid Neut.	1.65	3.20
99251-99351	250	Fused Neut.	2.50	4.35

METER SERVICE SWITCHES

"Square D" Accessible Main Fuses Without End Walls

Amps.		Poles	Fused For	Neutral	Meter Test Type	Price	Non-Meter Test Type	Price
30	2	2	Plug	Fused	30211	\$ 4.00	10211	\$ 3.65
30	2	1	"	Solid	30231	3.65	10231	3.35
30	3	2	"	"	30331	4.50	10331	3.95
30	3	2	"	Unfused	30381	4.85	10381	4.85
30	2	2	Enc.	Fused	30251	4.85	10251	4.55
30	2	1	"	Solid	30271	4.20	10271	3.85
30	3	2	"	Unfused	30361	5.40	10361	5.55
30	3	2	"	Solid	30371	4.85	10371	4.55
60	2	2	"	Fused	30252	16.80	10252	15.95
60	2	1	"	Solid	30272	15.95	10272	15.05
60	3	2	"	Unfused	30362	21.65	10362	20.55
60	3	2	"	Solid	30372	17.70	10372	16.80
100	2	2	"	Fused	30253	25.60	10253	24.75
100	2	1	"	Solid	30273	25.60	10273	23.85
100	3	2	"	Unfused	30383	30.90	10383	29.35
100	3	2	"	Solid	30373	27.40	10373	25.60

METER SERVICE SWITCHES

"Square D" Main Fuses Sealed Without End Walls

Amps.		Poles	Fused For	Neutral	Meter Test Type	Price	Number	Non-Meter Test Type	Price
30	2	2	1 Plug	Fused	36211	\$ 3.25	16211	\$ 2.85	
30	2	1	"	Solid	36231	3.25	16231	2.85	
30	3	2	"	"	36331	3.45	16331	3.00	
30	3	2	"	Unfused	36381	3.45	16381	3.45	
30	2	2	Enc.	Fused	36251	3.80	16251	3.40	
30	2	1	"	Solid	36271	3.50	16271	3.15	
30	3	2	"	Unfused	36361	4.00	16361	4.30	
30	3	2	"	Solid	36371	4.00	16371	3.55	
60	2	2	"	Fused	36252	15.05	16252	14.20	
60	2	1	"	Solid	36272	14.15	16272	13.30	
60	3	2	"	Unfused	36362	19.00	16362	17.90	
60	3	2	"	Solid	36372	15.95	16372	15.05	
100	2	2	"	Fused	36253	23.85	16253	23.00	
100	2	1	"	Solid	36273	23.85	16273	22.10	
100	3	2	"	Unfused	36383	26.50	16383	24.75	
100	3	2	"	Solid	36373	25.60	16373	23.85	

MISCELLANEOUS

		Price
Enclosed Double Branch Cutout No. 35211—30 Amp. 125 Volts.....		\$2.35
Fused Plug Receptacle.....	5021—30 125 "	2.20
	5001—30 250 "	5.65
Cabinet Porcelain Fuse Block.....	1021—30 125 "	1.25

UNIVERSAL METER SERVICE SWITCHES

"Square D" Meter Service Types

Single Type		All 30 Amp. 125 Volt Single Phase & DC without end walls	Ganging Type	
No.	Price		No.	Price
No. 32211 or 33211	\$3.45		No. 12211-13211	\$3.85
No. 32311	3.75		No. 12311	4.15
No. 34211	4.30		No. 14311	5.25
No. 34311	4.85			

METER SERVICE SWITCHES

"Square D" Without End Walls Live & Dead Fuse Type

METER TESTING							Price
Number	Amps.	Pole	Fused	Neutral	Description		
55211	30	2	1	Plug	Solid	Single Type Fuse Dead.....	\$ 2.25
58211	30	2	2	"	Fused	" " " Live.....	2.70
SK-916	30	2	1	"	Solid	" " " Dead.....	2.70
55311	30	3	2	"	"	" " " Live.....	3.45
57311	30	3	2	"	"	" " " Dead.....	3.45
15211	30	2	1	"	"	Gang Type Fuse Dead.....	2.60
18211	30	2	2	"	Fused	" " " Live.....	3.10
39231	30	2	1	"	Solid	Gang Type Acces. M. Fuses	4.05
39331	30	3	2	"	"	Gang Type Acces. M. Fuses	4.85
15311	30	3	2	"	Solid	" " " Dead.....	3.85
17311	30	3	2	"	"	" " " Live.....	3.85
58251	30	2	2	Cart.	Fused	Extra for End Wall.....	3.05
26251	30	2	2	"	"	Cartridge Fuse Live.....	3.30
57351	30	3	2	"	Solid	" " " Dead.....	3.75
28252	60	2	2	"	Fused	" " " Live.....	3.75
27312	60	3	2	"	Solid	" " " Dead.....	8.45
14312	60	3	2	"	"	" " " Live.....	8.90
28253	100	2	2	"	Fused	" " " Dead.....	19.80
27313	100	3	2	"	Solid	" " " Live.....	15.05
14313	100	3	2	"	"	" " " Dead.....	15.95
						" " " Live.....	27.30



Benj. H. Marshall, Architect & Builder.
Henry Newgard & Co., Electrical Contractor.

DRAKE TOWER

ADDITION TO

DRAKE HOTEL

CHICAGO



Another large and handsome building recently constructed in Chicago's near north-side wonder district.

ENAMELKOTE

was used for electrical installation.



In manufacturing Galvakote and Enamelkote rigid conduit-pipe, only the very best grades of materials are used. The pipe itself is made, and finished, in our own plant which is new and specially equipped with the most modern machinery. Pipe is drawn, and every detail of finishing is, by skilled and experienced mechanics.

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is easy to cut, thread and bend. Coatings are adhesive, flexible and durable. These are some of the reasons why these brands of rigid conduit pipe have gained the

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reputation.

CLAYTON MARK & COMPANY

CHICAGO

Manufacturers of
GALVAKOTE and ENAMELKOTE
SUPER-QUALITY RIGID CONDUIT PIPE



Prest-O-Lite Process is *extremely* *simple*

NO delicate, complicated, or moving parts to require expensive repairs or replacement . . . No adjustments . . . Lasts indefinitely with ordinary care.

Electrical Contractors everywhere find that Prest-O-Lite blow-torches—using Prest-O-Lite Gas—are handier than any other equipment for soldering, sweating, splicing, wiping, brazing and similar heating jobs. Prest-O-Lite Process speeds up the work and saves money.

Phone the Prest-O-Lite Gas Distributor about this equipment or write us direct for complete information.

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Unit of Union Carbide and Carbon Corporation

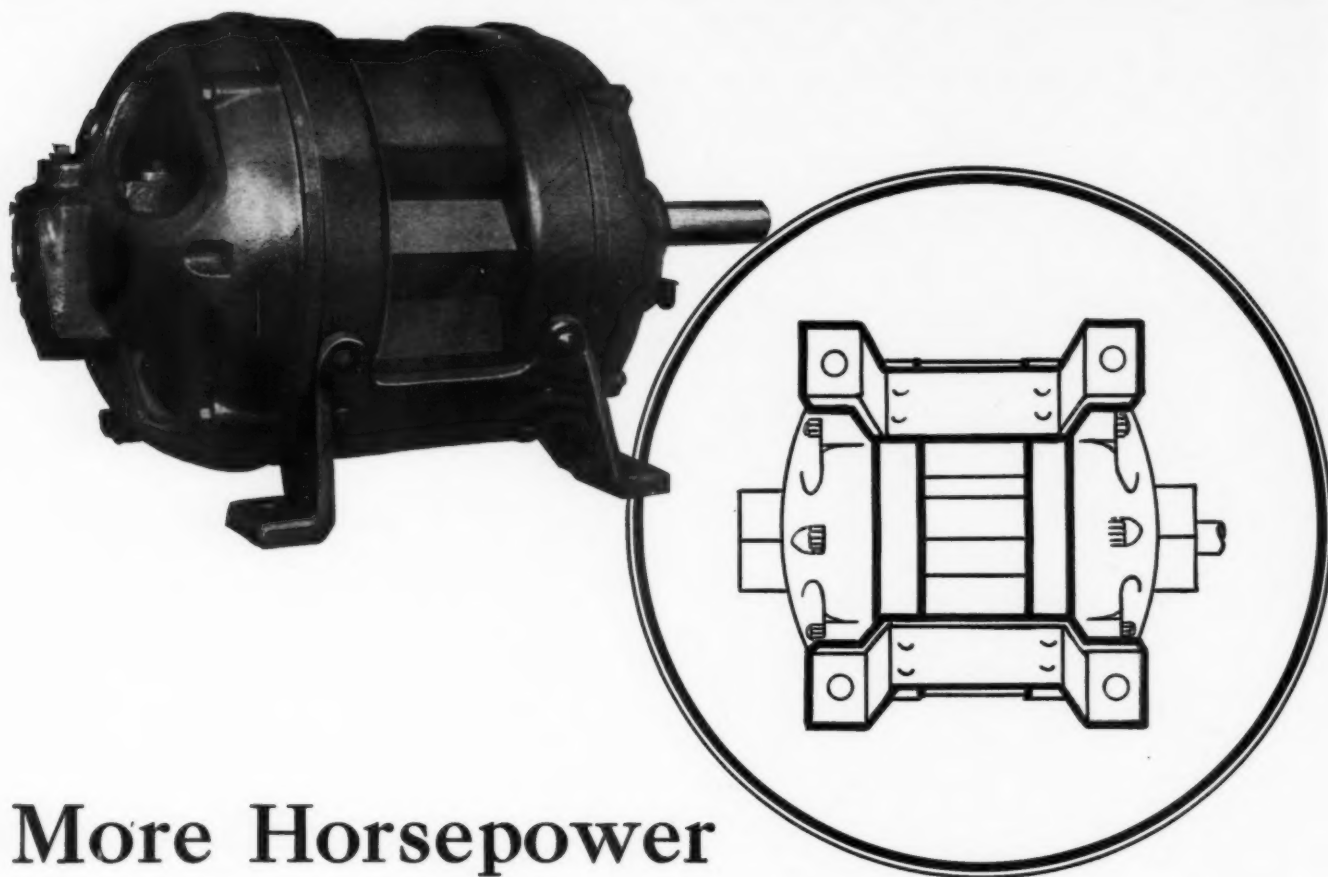
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More Horsepower per pound in *Unit Frame Construction*

MODERN electric motors are lighter in weight. Make sure that those you buy are not lighter in strength. Westinghouse unit-frame construction gives you lighter weight and reduced bulk without sacrifice of

strength or rigidity. Feet are of steel and will not break. Frames are reinforced so that they cannot weave. Unit-frame construction is but one of many improvements introduced in Westinghouse motors.



WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY
EAST PITTSBURGH PENNSYLVANIA
SALES OFFICES IN ALL PRINCIPAL CITIES OF THE UNITED STATES AND FOREIGN COUNTRIES



Westinghouse

Industrial Apparatus includes:

Arc Welding Equipment
Automatic Switching
Babbitt and Babbitt Pots
Battery Chargers
Capacitors
Circuit-Breakers

Electric Ovens
Instruments and Meters
Insulating Materials
Lighting Equipment
Locomotives
Mazda Lamps

Micarta Gears
Motors and Control
Panelboards
Safety Switches
Speed Reducers
Switchboards

T 30521

NO FUSES

NO SWITCHES



in the branch circuits

THE Westinghouse type NAB Nofuz panelboards are a radical departure from previous types of lighting control panels. Instead of the conventional toggle switch and fuse, the branch circuits are protected and controlled by automatic circuit-breakers.

These circuit-breakers, which operate on the Deion principle, have many characteristics which make them ideal for general lighting control. There are no fuses to replace when overloads occur. Unnecessary tripping is avoided because of the inverse-time-limit characteristics of the breaker. The calibration of the breaker can not be altered nor its action blocked so as to remove its protective features.

Nofuz panelboards are built with a solid neutral and are available in capacities of from 2 to 64 circuits in multiples of two circuits. Further information can be obtained from the nearest Westinghouse office.



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BROOKLYN WORKS
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Westinghouse

Products for the Electrical Contractor Include:

Circuit-Breakers
Fans
Fuses
Insulating Materials
Mazda Lamps

Meters
Lighting Fixtures
Motors and Control
Panelboards
Ranges

Safety Switches
Solar Glow Heaters
Switchboards
Transformers
Water Heaters

MOTOR STARTING SWITCHES Trumbull-Vanderpoel

Series	Description	Amps	Volts	2 Pole	3 Pole	4 Pole
#771	Bantam Star, with Ther. Cut...	1/4 H.P.	110	\$ 3.25		
43000	With Plug Thermal Cutouts	30	220	8.10	\$9.90	\$12.80
43000	"	30	440		14.85	17.05
46000	Motor Starter - No Fuses	30	220	12.50	13.05	16.50
46000	"	30	440		19.50	23.40
46000	"	30	550		26.60	
46000	"	60	220	17.10	19.50	26.60
46000	"	60	440		24.15	
75000	Motor Starter with Cutouts	30	220	12.60	16.65	19.80
75000	"	30	550		21.60	25.65

SMALL ENTRANCE SWITCHES Trumbull Electric Closed or Open Ends

Numbers	Amps	Volts	Fusing	2 Pole	3 Pole
5790 Midget	30	125	For 1 Plug Fuse	\$1.80	
5791-2-3-4 & 5893 & A	30	125	Plug Fuses	1.80	\$3.45
13640-13641	30	250	No Fuse-Slate Base	2.70	4.15
13642-43 & 13743 & A	30	250	For Enclosed Fuses	2.70	4.30
13221-13321	30	250		3.40	5.15

MAIN ENTRANCE SWITCHES Trumbull Electric Non Meter Test Solid End Wall

16361 to 16368	30	125-250	For Plug Fuses	\$2.75	\$3.45
16371 " 16378	30	"	Enclosed Fuses	3.05	3.75
16381 " 16388	60	250	"	8.50	9.00
16391 " 16398	100	250	"	15.10	16.00

METER SERVICE SWITCHES

Trumbull Electric For Meters Open End

16300 to 16309	30	125-250	For Plug Fuses	\$ 2.75	\$ 3.45
16315 " 16324	30	"	Enclosed Fuses	3.05	3.75
16330 " 16338	60	"	"	8.50	9.00
16341 " 16348	100	"	"	15.10	16.00

ACCESSIBLE FUSE METER SWITCHES

Trumbull Electric With Test Blades Without End Walls

18111	30	125	For 1 Plug Fuse	\$ 3.65	
18211-18311	30	125	Plug Fuses	4.00	\$4.45
18121	30	125-250	1 Enclosed Fuse	4.20	
18221-18321	30	"	Enclosed Fuses	4.85	4.85
18122-222-322	60	"	"	16.80	17.85
18123-223-323	100	"	"	25.60	27.50

Without End Walls and Without Test Blades

19111	30	125	For 1 Plug Fuse	\$ 3.35	
19211-19311	30	125-250	Plug Fuses	3.65	\$4.00
19121	30	"	1 Enclosed Fuse	3.85	
19221-19321	30	"	Enclosed Fuses	4.55	4.55
19122-222-322	60	"	"	16.00	16.80
19123-223-323	100	"	"	24.75	25.65

SEALED FUSE METER SWITCHES

Trumbull Electric With Test Blades Without End Walls

15827	30	125	For 1 Plug Fuse	\$ 2.25	
28111-28211-28311	30	125	Plug Fuses	3.25	\$ 3.45
28121	30	125	1 Enclosed Fuse	3.50	
28221-28321	30	125-250	Enclosed Fuses	3.75	4.00
28122-28222-28322	60	"	"	15.10	16.00
28123-223-323	100	"	"	23.90	25.65

UNIVERSAL METER SERVICE SWITCHES

Trumbull Electric

#971-123	For Details See Trumbull Catalog	\$3.45	Less End Wall	
972-123	"	4.30	"	
973-333	"	3.75	"	
975-333	"	4.85	"	
979-333	"	4.85	"	

END WALLS, SHUTTERS, TROUGHS

Trumbull Electric

One Piece End Wall for 30 Amp. Switch, \$ 30	For 60 & 100 A. Switches, \$ 80
Shutter for	15
Troughs—2-3 & 4'...	\$.37 5'...\$.41 6'...\$.44 7'...\$.52 8'...\$.55
Distribution Cutout Block—#5850—Less Fuses	1.10

TYPE "A" SWITCHES

Trumbull Electric Single Throw, Quick Make & Break

Amps.	2 Pole	3 Pole	250 Volts Fusible	250 Volts Unfused
30	#72221 \$10.80	#72321 \$12.60	#36221 \$ 9.45	#36321 \$11.25
60	72222 13.50	72322 17.10		
100	72223 20.70	72323 27.00		
200	72224 32.40	72324 36.00		
Amps.	2 Pole	3 Pole	500 Volts Fusible	500-500 Volts Unfused
30	#72251 \$14.50	#72351 \$18.00	#36251 \$10.70	#36351 \$13.95
60	72252 16.40	72352 18.90	36252 10.70	36352 14.40
100	72253 25.20	72353 28.80	36253 19.80	36353 21.60
200	72254 39.60	72354 45.00	36254 25.25	36354 30.60

"R.M." & TYPE "A" SMALL STARTING SWITCHES Trumbull Electric

250 V. 2 Position	2 Pole	3 Pole	60 Amp.
#94261	\$ 9.10	94321 \$10.35	94222 \$16.20 94322 \$18.90
600 V. " "	94261 14.40	94361 16.20	94262 20.70 94362 23.40
110-550 Invers. Time	93261 10.80	93361 11.70	
250 " "	83221 10.80	83321 13.05	
600 Sauff Arc	83261 14.85	83361 18.00	

June, 1929

TYPE "C" SWITCHES

Trumbull Electric Single Throw, Quick Break Only

Amps.	2 Pole	3 Pole	250 Volts Fusible	250 Volts Unfused
30	#40221 \$ 5.40	#40321 \$ 6.75	#20221 \$ 4.95	#20321 \$ 6.30
60	40222 8.10	40322 9.90		
100	40223 12.60	40323 15.30		
200	40224 19.80	40324 26.10		
Amps.	2 Pole	3 Pole	500 Volts AC Fusible	500-500 Volts Unfused
30	#40251 \$ 9.00	#40351 \$ 8.55	#20251 \$ 7.65	#20351 \$ 8.10
60	40252 9.90	40352 10.80	20252 8.10	20352 8.55
100	40253 14.40	40353 17.10	20253 10.80	20353 12.15
200	40254 28.80	40354 32.40	20254 18.90	20354 22.50

R. M. SAFETY SWITCHES

Trumbull Electric, All 30 Amp.

Volts	Fused	Numbers	2 Pole	3 Pole	4 Pole
250-600 AC	Not Fused	46261-46361-46461	\$ 5.40	\$ 7.20	\$ 9.90
250 Volts	Fusible	92221-92321-92421	6.30	8.10	10.80
600 " AC		92261-92361	13.05	13.95	

TYPE "A" MOTOR STARTING SWITCHES

Trumbull Electric

Phase	Numbers	Cycle	110 Volt	220 Volt	440 Volt	550 Volt
Single	95211-21-51-61	60	\$22.25	\$22.25	\$25.20	\$26.30
"	85211-21-51-61	25	22.25	22.80	30.45	31.60
3 Phase	96311-21-51-61	60	25.20	25.20	28.70	30.40
"	86311-21-51-61	25	25.20	26.30	35.10	36.00
2 " 3 Wire	98311-21-51-61	60	26.30	26.30	31.60	34.30
"	88311-21-51-61	25	26.30	28.30	37.00	38.70
"	99411-21-51-61	60	40.95	40.95	45.40	45.70
"	89411-21-51-61	25	40.95	42.70	48.00	50.85

TUMBLER SWITCHES

Trumbull Electric

#2221	\$2.25	#2221E	\$3.85	#3221	\$1.60	#2361	\$6.00
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SMALL 30 AMP. MIDGET & TYPE "OO"

Westinghouse Residence Type

Midget-Solid Neutral-1 Blade-1 Fuse	2 Pole	3 Pole
#62612 & #60969	\$1.65	
Type OO Fusible For Plug Fuses 125-250 V.	1.85	#60961 \$3.00
" " Fusible Solid Neut. For Plug Fuses 125-250 Volts.	#60091 1.75	#62328 2.70
" " 3 Blades.		#60962 3.00
" " Non-Fusible 2 Blades 250 Volt.	#60990 2.55	#62352 2.70
" " Non-Fusible 3 Blades 250 Volt.		#62365 4.00
" " Fusible For Cart. Fuses 250 Volt.	#60989 2.45	#62363 4.30
" " Fusible For Cart. Fuses Solid Neut.		#62351 3.15
" " Fusible For Cart. Fuses 3 Blade Solid Neutral.		#62364 4.30
Type WK-45 Fusible For Cart. Fuses 3 Blade 250 Volt.		#545101 5.55
Type WK-45 Solid Neut. Cart. Fuses 250 V.		#545341 5.20
Type WK-45 Non-Fusible Cart. Fuses 250 V.		#545001 4.15

METER SERVICE SWITCHES

Westinghouse Type "WK-54" Without End Walls

Amps.	Fused	2 Pole	3 Pole	Live Fuse Type	2 Pole	3 Pole
30	Plug	#61140 \$ 2.20		60224 \$ 2.70	59442 \$ 3.45	
30	"	61143 3.25	61142 \$3.45	59441 2.70	60225 3.45	
30	Enclosed	61639 3.50		54371 3.05	60227 3.75	
30	"	61145 3.75	61144 4.00		59448 3.75	
60	"	61150 15.05	61151 16.00	59461 8.45	60229 8.90	
100	"	61152 23.85	61153 25.50	59463 15.05	60232 15.95	

POLYPHASE METER SWITCHES

Westinghouse "WK-54"

30 Amp. No.	60997	With End Wall \$11.50	No. 60266	Less End Wall \$11.00
60	"	60998 " 17.50	"	60267 " 16.50
100	"	60999 " 27.50	"	60268 " 26.00

ACCESSIBLE FUSE TYPE

Westinghouse "WK-65" Without End Walls

Amps.	Fused	2 Pole	3 Pole	Without Test Facilities	2 Pole	3 Pole
30	Plug	#65000 \$ 3.65		65010 \$ 3.35		
30	"	65001 3.95	65002 \$4.50	65011 3.65	65012 \$3.95	
30	Enclosed	65055 4.20		65063 3.85		
30	"	65003 4.85	65004 4.85	65013 4.55	65014 4.55	
60	"	65005 16.80	65006 17.70	65015 15.95	65016 16.80	
100	"	65007 25.60	65008 27.40	65017 24.75	65018 25.60	

POLYPHASE ACCESSIBLE METER SWITCHES

Westinghouse "WK-65"

30 Amp. 3 Pole without End Wall	No. 65100	\$11.20	No. 65103	\$10.55
60 " " "	No. 65101	20.35	No. 65104	18.60
100 " " "	No. 65102	30.00	No. 65105	28.15

UNIVERSAL

Westinghouse "WK-57" Meter Service Switches Without End Walls. Sealed Main Fuses.

All 30 Amp.	For Full Details See	#57924
125 Volt	Westinghouse	57925
Standardized	Switch Catalog #282	57926
		57928
		57931

METER TRIMS—END WALLS—TROUGHS

Westinghouse

	30 Amp.	60 & 100 Amp.
One Piece Meter Trims.....	\$0.30	\$0.80
Blank End Wall or Shutter Type End Wall.....	.30	.80
Shutter Type Meter Trim or Adaptor Trim.....	.15	.30
New Universal Trim with slide.....	.30	.....
Replacement Plate or Adapting Plate.....	.15	.....
Wiring Trough—2-3 & 4" long.....	\$0.40	\$0.45 5" \$0.50 6" \$0.55 7" \$0.60
Fuse Receptacle #R57252.....	Less Fuses, \$1.25	.....

QUICK BREAK ONLY

Industrial Westinghouse "WK-62" Type "C"

Amps.	250 Volts Fusible		500 Volts AC Fusible	
	2 Pole	3 Pole	2 Pole	3 Pole
30.....	#62100 \$ 5.40	#62101 \$ 6.75	#62200 \$ 9.00	#62201 \$ 8.55
60.....	#62103 8.10	#62104 9.90	#62203 9.60	#62204 10.80
100.....	#62106 12.60	#62107 15.30	#62206 14.40	#62207 17.10
200.....	#62109 19.80	#62110 26.10	#62209 28.80	#62210 32.40

Amps.	250-500 Volts Non-Fusible		600 Volts Non-Fusible	
	2 Pole	3 Pole	2 Pole	4 Pole
30.....	#62047 \$ 7.65	#62048 \$ 8.10	#62054 \$13.05	#62055 \$18.90
60.....	#62013 8.10	#62014 8.55	#62057 17.10	#62058 26.10
100.....	#62016 10.80	#62017 12.15	#62060 27.60	#62061 44.10
200.....	#62019 18.90	#62020 22.50	.....	.....

MOTOR STARTING SWITCHES

Westinghouse

Industrial "WK-66" Quick Make & Break

Amps.	250 Volts Fusible		500 Volts AC Fusible	
	2 Pole	3 Pole	2 Pole	3 Pole
30.....	#66100 \$10.80	#66101 \$12.60	#66154 \$14.40	#66155 \$18.00
60.....	#66103 13.50	#66104 17.10	#66157 16.20	#66158 18.90
100.....	#66106 20.70	#66107 27.00	#66160 25.20	#66161 28.80
200.....	#66109 32.40	#66110 36.00	#66163 39.60	#66164 45.00

Amps.	250-500 Volts Non-Fusible		600 Volts Non-Fusible	
	2 Pole	3 Pole	2 Pole	4 Pole
30.....	#66050 \$11.70	#66051 \$13.95	#66048 \$17.10	#66049 \$21.60
60.....	#66053 11.70	#66054 14.40	#66057 24.75	#66058 32.40
100.....	#66133 19.80	#66134 21.60	#66060 33.30	#66061 46.80
200.....	#66136 25.20	#66137 30.60	.....	.....

GENERAL UTILITY SWITCHES

Noark Closed Ends

Numbers	Amps.	Volts	Fused For	2 Pole	3 Pole
8283.....	30	125	For Plug Fuses.....	\$1.65	.....
8383-8483-8583.....	30	125	" " " " " " " "	1.80	\$2.50
8683-8693.....	30	125	" " " " " " " "	2.75	3.20

METER SERVICE SWITCHES

Noark Sealed Service SECO Without End Walls

Amps.	Fused For	Test Type		Non Test Type	
		2 Pole	3 Pole	2 Pole	3 Pole
30A Plug.....	9543 \$3.25	9523 \$4.45	8543 \$2.85	8523 \$3.00
30A Enclosed.....	9563 3.75	9533 4.00	8563 3.40	8533 3.55
30A Plug & Enc.....	9573 3.50	.....	8573 3.15	8593 2.40
60A Enclosed.....	9566 15.05	9536 15.95	8566 14.20	8536 15.05
60A ".....	9576 14.15	.....	8576 23.30	.....
100A ".....	9561 23.85	9531 25.60	8561 23.00	8531 23.85

Noark Accessible Service ACCO Without End Walls

Amps.	Fused For	Test Type		Non Test Type	
		2 Pole	3 Pole	2 Pole	3 Pole
30A Plug.....	9343 \$3.65	.....	8343 \$3.35	.....
30A ".....	9353 3.95	9323 \$4.45	8353 3.65	8323 \$3.95
30A Enclosed.....	9363 4.85	9333 4.85	8363 4.55	8333 4.55
60A ".....	9366 16.80	9336 17.70	8366 15.95	8336 16.80
100A ".....	9361 25.60	9331 27.40	8361 24.75	8331 25.60

Noark Universal Without End Plates

For Detailed Description, see Noark Catalog	No. 971123		—Without End Walls.....	
	" 9723	" 972123	" " " "	" " " "
	" 973333	" " " "	" " " "	" " " "
	" 9753 & 9793	" " " "	" " " "	" " " "
	" 975333-979333	" " " "	" " " "	" " " "

Noark Doall Without End Plate

Amps.	Fused For	2 Pole		3 Pole	
		Numbers	Price	Numbers	Price
30A Plug.....	913123-911123	\$ 2.70	912333-914333	\$ 3.45
30A Enclosed.....	923123-921223	3.05	922333-924333	3.75
60A ".....	923126-921226	8.45	925336	8.90
100A ".....	923121-921221	15.05	925331	15.95

NUBLADE SWITCHES

Noark Fusible

Amps.	250 Volts Fusible		500 Volts AC Fusible	
	2 Pole	3 Pole	2 Pole	3 Pole
30.....	#8223 \$ 4.50	#8233 \$ 5.05	#8423 \$ 9.00	#8433 \$ 8.55
60.....	#8226 8.10	#8236 9.90	#8426 9.90	#8436 10.80
100.....	#8221 12.60	#8231 15.30	#8421 14.40	#8431 17.10
200.....	#8222 19.80	#8232 26.10	#8422 28.80	#8432 32.40
400.....	#8224 48.60	#8234 66.60	.....	.....

Noark Not-Fusible—Quick Break

Amps.	Volts	2 Pole		3 Pole		4 Pole	
		No.	Price	No.	Price	No.	Price
30	250	8723	\$ 2.70	8733	\$ 4.05	8743	\$ 8.10
30	500 AC	8623	7.65	8633	8.10	8643	10.80
60	250-500	8626	8.10	8636	8.55	8646	13.50
100	250-500	8621	10.80	8631	12.15	8641	20.70
200	250-500	8622	18.90	8632	22.50	8642	37.80
400	250-500	8624	39.60	8634	54.00	8644	68.40

80

ACCESSORIES FOR NOARK SWITCHES

Single Piece End Wall for 30 Amp. Switches.....	\$.30	For 60 & 100 Amp.....	\$.80
Shutter for 30.....	.15	60 & 100.....	.30
Universal End Wall No. 909103.....	.40	.....	.....
Blanking Side No. 908103-908203.....	.15	.....	.....
Trough—3-4 & 5' \$.40—6' \$.45—7'.....	.50	8'—\$.55—9'.....	.80
Cabinet Fuse Block No. 902413.....	1.25	.....	.....

POLYPHASE

Noark Switches Without End Walls

Amps.	No.	Price	Main Entrance "Acco" Quad Break		"Seco" Quad Break	
			Accessible Fuses	Sealed Fuses	No.	Price
30A.....	851233	\$ 4.70	77033	\$10.50	77533	\$10.40
60A.....	851236	11.70	77036	18.60	77536	15.05
100A.....	851231	19.20	77031	28.25	77531	24.75

Amps.	No.	Price	Meter Service		Sealed Fuses	
			Accessible Fuses	Sealed Fuses	No.	Price
30A.....	931233	\$11.05	67033	\$11.15	67533	\$11.05
60A.....	931236	16.65	67036	20.35	67536	16.80
100A.....	931231	26.15	67031	30.00	67531	26.50

MAIN ENTRANCE SWITCHES

Noark Doall Without End Walls

Amps.	Fused For	Numbers	Price	3 Pole	
				Numbers	Price
30	Plug Fuses	813123-811123	\$ 2.70	812333-814333	\$ 3.45
30	Enclosed Fuses	853123-851223	3.75	852333-854333	4.30
60	" "	853126-851226	8.45	855336	8.90
100	" "	853121-851221	15.05	855331	15.95

SOLID NEUTRAL SWITCHES

Noark Fusible—Quick Break

Amps.	Volts	3 Pole-2 Poles		4 Pole-3 Poles		5 Pole-4 Poles	
		No.	Price	No.	Price	No.	Price
30	125-250	8133	\$ 4.95	8143	\$ 8.10	8153	\$ 9.00
60	" "	8136	9.00	8146	11.25	8156	19.80
100	" "	8131	14.40	8141	19.80	8151	35.55
200	" "	8132	22.50	8142	31.50	8152	50.40
400	" "	8134	63.00	8144	81.00	8154	120.60

TOGGLE SWITCHES

Bulldog

125 V.-2 Pole-One Blade		No. 111 & 211		BT-TE-TF & TM	
" 2 " " Two " "		" Solid Neutral		TE-211S	\$ 1.80
" 3 " " Three " "		" 3 Plug Fuses		TE-311B	4.50
" 3 " " Three " "		" Solid Neutral		TE-311S	5.00
250 " 2 " Two " "		" 2 Fuse Conn.		TE-311SG	8.10
" 3 " " Three " "		" 3 Fuse Conn.		TF-321S	7.20
" 3 " " Three " "		" Solid Neutral		TF-321S	5.40
500-600 V.-3 Pole-Three Blade 3 Fuse Conn.				TF-321SG	8.10
250-600 " 2 " "				TF-321SG	7.65
" 3 " " Three " "				TN-261S	12.60
" 3 " " Three " "				TN-261S	5.40
Motor Starter 3 " TJM-321S & TJM-321SU				TN-361SR	7.28
				TN-361SR	10.00

TYPE "C" SWITCHES

Bulldog Single Throw Fusible Quick Make & Break

Amps.	250 Volts DC & AC	2 Pole		3 Pole	
		No.	Price	No.	Price
30 125 Volt only.....		JF211S	\$ 3.00	JF311S	\$ 4.40
30 Porc. Base.....		JF221S	3.15	JF321S	5.15
30 End Plates.....		JF221P	3.15	JF321P	5.15
30 Slate Base.....		JF221	5.40	.....	.....
60 ".....		JF222	8.10	JF322	9.90
100 ".....		JF223	12.60	JF323	15.30
200 ".....		JF224	19.80	JF324	26.10
400 ".....		SF225	48.60	SF325	66.60

Amps.	500-600 Volts A. C.	3 Pole		4 Pole	
		No.	Price	No.	Price
30 125 Volt only.....	
30 Porc. Base.....	
30 End Plates.....	
30 Slate Base.....		JF351	\$ 8.50	JF451	\$ 13.50
60 ".....		JF352	10.80	JF452	14.40
100 ".....		JF353	17.10	JF453	29.80
200 ".....		JF354	32.40	JF454	46.80
400 ".....		SF355	81.00	SF455	126.00

TYPE "C" SWITCHES

Bulldog Single Throw Not-Fusible

Amps.	250 Volts	2 Pole		3 Pole	
		No.	Price	No.	Price
30	250-500-600 Volts	JN221S	\$ 3.15	JN321S	\$ 4.15
30	" " " "	JN251	7.65	JN351	8.10
60	" " " "	JN252	8.10	JN352	8.55
100	" " " "	JN253	10.80	JN353	12.15
200	" " " "	JN254	17.60	JN354	22.50
400	" " " "	SN255	36.00	SN355	46.80

Amps.	250 Volts	2 Pole		4 Pole	
		No.	Price	No.	Price
30	250-500-600 Volts	JN421S	\$ 8.00	JN451	\$ 10.80
30	" " " "	JN451	10.80	JN452	13.50
60	" " " "	JN452	13.50	JN453	20.70
100	" " " "	JN453	20.70	JN454	47.80
200	" " " "	JN454	47.80	JN455	68.00
400	" " " "	JN455	68.00	.....	.....

30 AMP. SERVICE ENTRANCE SWITCHES

Bulldog

2 Pole—125 Volt—Fusible—for Plug Fuses No.	JE211 S & P.....	\$1.65
2 " 125 " " " " Quick Make & Break JF211S.....		2.70
2 Pole—250 Volt—Fusible—for Cart. Fuses SF221 S & P.....		2.50
2 Pole—250 Volt—not Fusible—for Cart. Fuses SN221 S & P.....		2.70
3 Pole—125 Volt—Fusible—for Plug Fuses No. JE311 SP & PG.....		3.00
3 Pole—125 Volt—Fusible—for P.u.g. Fuses Quick Make & Break JF311S		4.35

"TYPE A"

Bulldog Single Throw Quick Make and Break

	2 Pole		3 Pole	
250 Volts Fusible	Number	Price	Number	Price
30 Amp.	SF-221	\$ 10.80	SF-321	\$ 12.60
60 "	SF-222	13.50	SF-322	17.10
100 "	SF-223	20.70	SF-323	27.00
200 "	SF-224	32.40	SF-324	36.00
400 "	SF-225	63.00	SF-325	81.00
500-600 Volts Fusible				
30 Amp.		For	SF-351	18.00
60 "		2 Pole	SF-352	19.90
100 "		See 600 Volt	SF-353	28.80
200 "		Fusible	SF-354	45.00
400 "		Below	SF-355	88.00
250-500-600 Not Fusible				
30-60 Amp.	SN-251	\$11.70	SN-351	13.95
100 "	SN-253	19.80	SN-353	21.60
200 "	SN-254	25.20	SN-354	30.60
400 "	SN-255	54.00	SN-355	63.00
600 Volts Fusible				
30 Amp.	SF-261	16.20	SF-361	19.30
60 "	SF-262	17.10	SF-362	19.80
100 "	SF-263	27.00	SF-363	31.70
200 "	SF-264	42.00	SF-364	48.60
400 "	SF-265	93.00	SF-365	122.00
600 Volts Not Fusible				
30-60 Amp.	SN-261	12.60	SN-361	16.20
100 "	SN-263	20.25	SN-363	24.75
200 "	SN-264	26.50	SN-364	33.75
400 "	SN-265	65.50	SN-365	87.75
250 Volts Fusible			4 Pole	
30 Amp.			Number	Price
60 "			SF-421	\$ 16.20
100 "			SF-422	21.60
200 "			SF-423	36.00
400 "			SF-424	54.00
500-600 Volts Fusible			SF-425	108.00
30 Amp.			SF-451	21.60
60 "			SF-452	23.40
100 "			SF-453	47.80
200 "			SF-454	57.60
400 "			SF-455	126.00
250-500-600 Not Fusible				
30-60 Amp.			SN-451	19.80
100 "			SN-453	28.80
200 "			SN-454	40.00
400 "			SN-455	103.50
600 Volts Fusible				
30 Amp.			SF-461	23.40
60 "			SF-462	25.20
100 "			SF-463	39.60
200 "			SF-464	59.40
400 "			SF-465	144.00
600 Volts Not Fusible				
30-60 Amp.			SN-461	21.75
100 "			SN-463	29.70
200 "			SN-464	43.65
400 "			SN-465	120.60

COMPENSATOR SWITCHES "A"

Bulldog Quick Make & Break Fusible

Amps.		250 Volt AC			
		3 Pole		4 Pole	
30 A.	SF321 C	\$16.20	SF421 C	\$ 21.60	
60 A.	SF322 C	20.25	SF422 C	26.10	
100 A.	SF323 C	31.50	SF423 C	46.80	
200 A.	SF324 C	45.90	SF424 C	64.80	
400 A.	SF325 C	94.50	SF425 C	129.00	
Amps.		500-600 Volts AC			
		3 Pole		4 Pole	
30 A.	SF351 C	\$20.70	SF451 C	\$32.40	
60 A.	SF352 C	21.00	SF452 C	36.00	
100 A.	SF353 C	33.75	SF453 C	61.20	
200 A.	SF354 C	50.40		.....
400 A.	SF355 C	105.60		.....

MOTOR STARTERS

Bulldog

				3 Pole	
30	Amp-Type	C-Porc.	Base-110 to 440 Volt	JM-321S	\$ 6.75
30	"	C Slate	440 & 550 "	JM-351	11.70
30	"	"	250 Volt	MF-321	17.00
30	"	"	500 "	MF-351	23.75
60	"	"	250 "	MF-322	23.50
60	"	"	500 "	MF-352	28.80
				4 Pole	
30	Amp-Type	C-Porc.	Base-110 to 440 Volt		....
30	"	C-Slate	440 & 550 "		....
30	"	"	250 Volt	MF-421	\$22.80
30	"	"	500 "	MF-451	35.25
60	"	"	250 "	MF-422	29.45
60	"	"	500 "		....

NOTE: For Bulldog Switches not listed deduct 10% from Bulldog Lists.

June, 1929

SMALL ENTRANCE SWITCHES

Columbia, 30 Amp.

Description						2 Pole
Single Fused	Single Blade	-125 Volt-Plug Fused				\$20-\$21 \$1.50
Double	Double	125				1930 1.95
						3930 1.90
		250	Cartridge Fused			322 2.35
						422 2.60
Description						3 Pole
Single Fused-Single Blade	-125 Volt-Plug Fused					....
Double	Double	125				1931-2 \$2.15
						3930-1 2.50
		250	Cartridge Fused			323 4.00
		250				423 4.50

BRANCH CIRCUIT ENTRANCE SWITCHES

Columbia

30 Amp. Series	2 Circuit 2 Pole	4 Circuit 2 Pole 3 Pole	6 Circuit 2 Pole 3 Pole	8 Circuit 3 Pole
2401 to 2406	\$4.00	\$5.00 \$5.35	\$6.00 7.35	\$6.35 8.75
3401 to 3406	5.00	6.35 6.65	7.35 8.70	9.75
3501 to 3506	4.85	6.00 6.35	7.00 7.70	8.70

INDUSTRIAL SWITCHES

Columbia

Series 70 Type C Fusible					
	Amps		2 Pole		3 Pole
		Number	Price	Number	Price
250 Volts	30A	C7001	\$ 9.40	C7002	\$11.50
Fusible	60A	C7004	12.10	C7005	15.75
Quick Make	100A	C7007	19.10	C7008	24.00
& Break	200A	C7010	28.35	C7011	35.00

Series 70 Type A Fusible					
	Amps	2 Pole		3 Pole	
		Number	Price	Number	Price
250 Volts	30A	A7001	\$10.45	A7002	\$13.00
Fusible	60A	A7004	13.30	A7005	17.85
Quick Make	100A	A7007	21.75	A7008	27.90
& Break	200A	A7010	31.00	A7011	39.00

Series 71-500 Volts Fusible					
Amps			2 Pole		
			3 Pole		
500 Volts	Number	Price	Number	Price	
Quick Make & Break	30A	7101	7102	\$15.75	
	60A	7104	7105	16.10	
	100A	7107	7108	37.00	
	200A	7110	7111	43.80	

Series 73-500 Volts Unfused					
	Amps	2 Pole		3 Pole	
		Number	Price	Number	Price
500 Volts	30A	7301	\$11.00	7302	\$12.60
Quick Make	60A	7304	11.00	7305	18.40
& Break	100A	7307	17.35	7308	10.60
	200A	7310	24.00	7311	28.80

Series 72-800 Volts Fusible					
	Amps	2 Pole		3 Pole	
		Number	Price	Number	Price
600 Volts	30A	7201	\$14.80	7202	\$16.25
Quick Make	60A	7204	14.80	7205	16.75
& Break	100A	7207	24.50	7208	27.60
	200A	7210	39.00	7211	43.00

Series 74-600 Volts Unfused					
	Amps	2 Pole		3 Pole	
		Number	Price	Number	Price
600 Volts	30A	7401	\$11.90	7402	\$14.50
Quick Make	60A	7404	12.60	7405	15.10
& Break	100A	7407	19.20	7408	21.75
	200A	7410	25.50	7411	29.00

Series 20-250 Volts Fusible					
Amps		2 Pole		3 Pole	
		Number	Price	Number	Price
Quick Break Only 250 Volts	30A	2022	\$ 5.15	2023	\$ 8.01
	60A	2025	6.95	2026	8.06
	100A	2028	10.95	2029	13.55
	200A	2031	19.35	2032	24.26

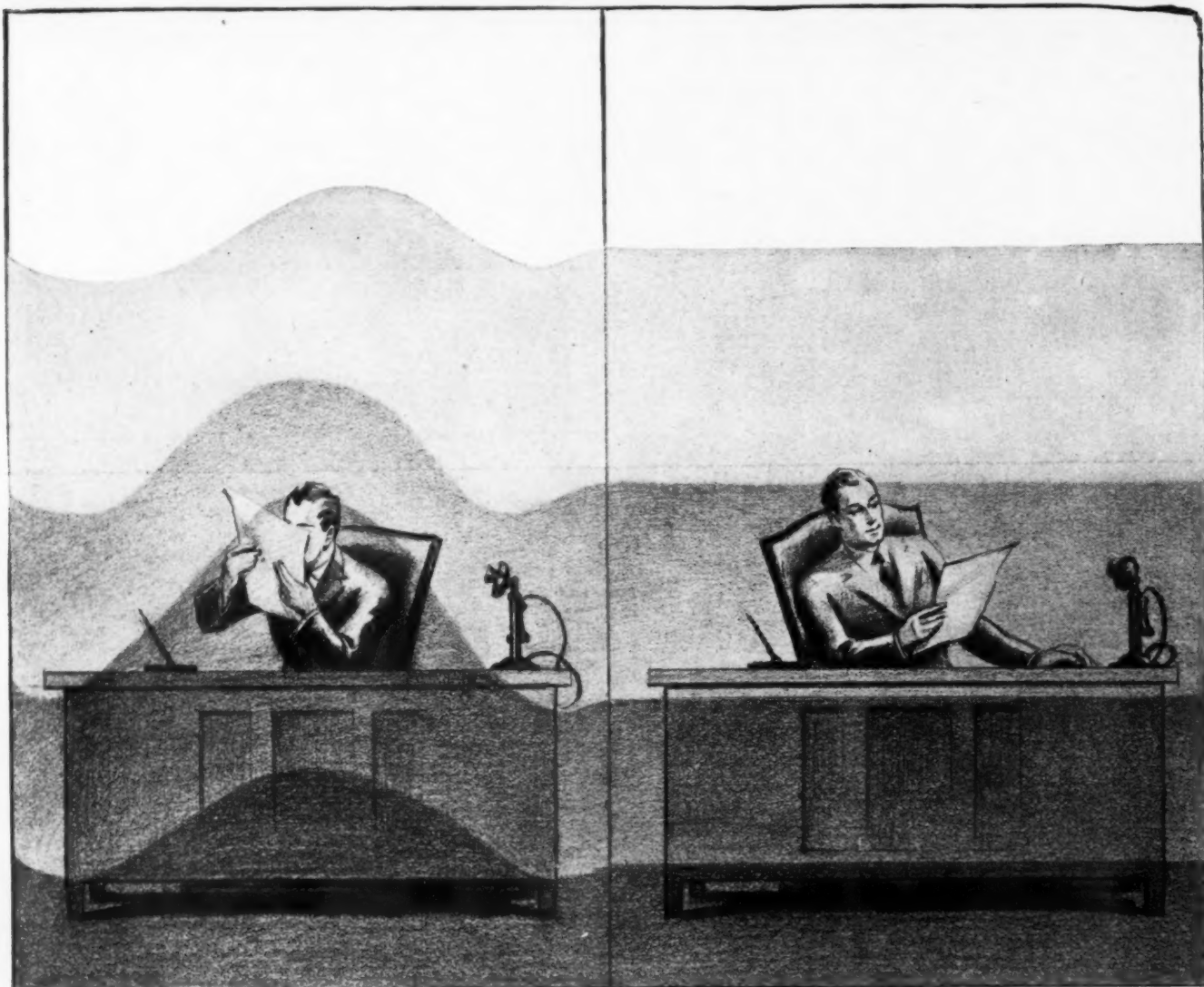
Series 23-250-500 Volts Unfused					
	Amps	2 Pole		3 Pole	
		Number	Price	Number	Price
Quick Break	30A	2322	\$ 4.85	2323	\$ 6.30
Only	60A	2325	9.10	2326	9.70
250 Volts	100A	2328	11.60	2329	12.70
	200A	2331	19.40	2332	23.40

Series 30—Quick Break—250 Volts For Meter Trims				
	30 Amp.		60 Amp.	
2 Pole.....	3022	\$5.65	3025	\$ 8.90
3 Pole.....	3023	7.65	3026	16.00
	100 Amp.		200 Amp.	
2 Pole.....	3028	\$12.70	3031	\$18.30
3 Pole.....	3029	16.30	3032	24.30

MOTOR STARTING SWITCHES

Columbia, 250 Volts

	2 Pole		3 Pole	
30 Amp. Motor Start Switch.....	6001	\$12.70	6002	\$17.00
60 " " " "	6004	13.30	6005	17.45
	4 Pole			
30 Amp. Motor Start Switch.....	6003	\$20.00		
60 " " " "	6006	27.20		



STRANGE WHAT LIGHT WILL DO if you don't have BALANCED LIGHTING

It is common knowledge that high efficiency lighting units do not necessarily guarantee good lighting. As every contractor knows, costly eyestrain and expensive errors are caused by the misapplication of otherwise good lighting units... But it is comparatively easy to prevent light from doing unexpected and undesirable things.

A lighting unit can be selected accurately to meet existing lighting needs. But no one unit can be a cure-all.

Experience has shown the most useful



The Shelcrest, a Bakelite fixture. The leader in the Graybar line. But only one of a great many fixtures.

FOR BALANCED LIGHTING, WEIGH:	
Horizontal Light	vs. Reflected Glare
Vertical Light	vs. Direct Glare
Shadow Depths	vs. Flat Shadows
Maintenance & Design	vs. First Cost



Showing how various factors balance, for best results in any given case

lighting to be an adjustment of variable quantities—in a fixture, the *balance* of lighting factors against its requirements. Eight points are here involved, as the table shows.

From this comes Balanced Lighting, the key-note of the Graybar Lighting Line—the yardstick employed by Graybar Lighting Engineers in selecting, from all types of fixtures, *the* best fixture for a given purpose.

Why not apply that yardstick to *your* lighting problems? See coupon below.

GraybaR 
Successor to *Western Electric* Supply Dept.
BALANCED LIGHTING

Graybar Electric Co., Graybar Building, Lexington Avenue and 43rd Street, New York, N. Y.

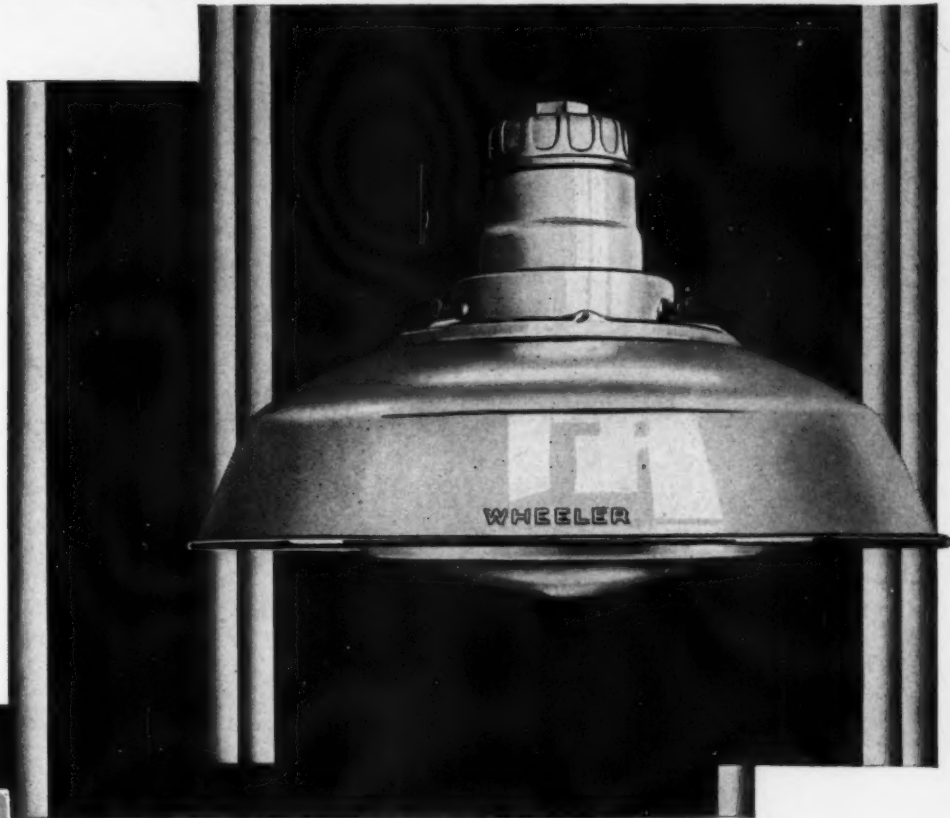
Gentlemen: We are interested in knowing more about BALANCED LIGHTING.

NAME

ADDRESS

DURATACH GLASSTEEL DIFFUSERS

Another
achievement
in modern
reflector
construction -
by *Wheeler*



Duratach construction allows reflector, lamp and globe to be attached to or removed from canopy as one complete unit. Only a single operation is necessary for installation. All mechanical and electrical connections are made at one time. Photo above shows the details of Duratach construction.

Duratach Glassteel Diffusers represent the latest achievement of Wheeler engineers. With Duratach construction, globe and lamp need not be handled separately; instead, they are removed from canopy, together with reflector, as one piece. Easier to install, easier to clean and relamp, and far more economical, this unit brings a new convenience and efficiency to modern industrial lighting equipment. Our nearest representative will gladly give you complete information on Wheeler Duratach Glassteel Diffusers. Why not get in touch with him?

WHEELER REFLECTOR CO.

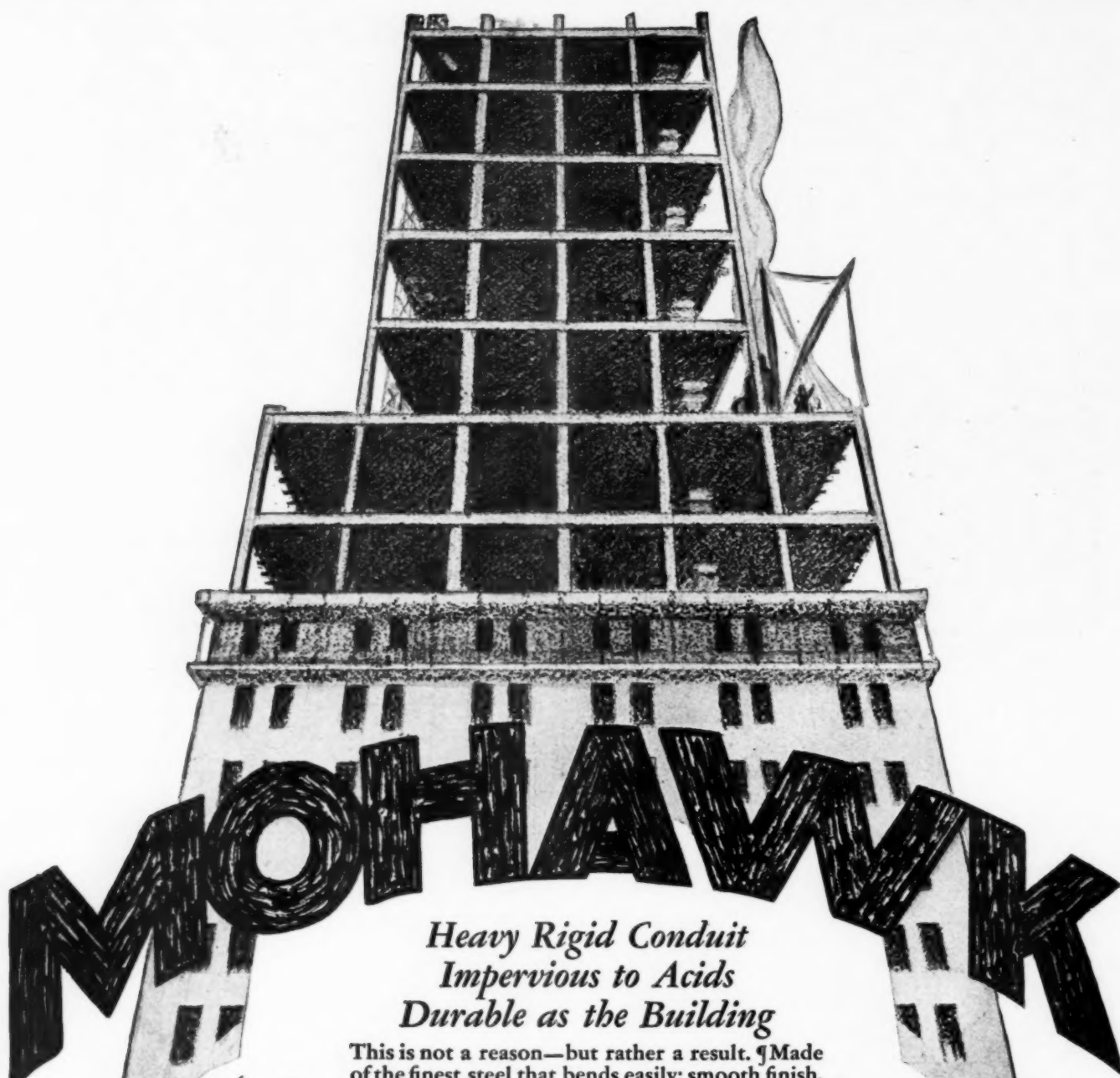
275 Congress Street, Boston, Mass.

NEW YORK

ATLANTA

CLEVELAND

Sales Office: St. Louis, Indianapolis, Los Angeles, San Francisco, Seattle
In Canada: Canadian General Electric Co., Limited



*Heavy Rigid Conduit
Impervious to Acids
Durable as the Building*

This is not a reason—but rather a result. Made of the finest steel that bends easily; smooth finish, tough glossy enamel;—these are the reasons that make Mohawk Conduit rigid, impervious and durable.

The other reasons are:

Smooth finish, tough glossy enamel.

Pipe bends so easily, you hardly realize it is steel.

Clean, even threads that make work a joy.

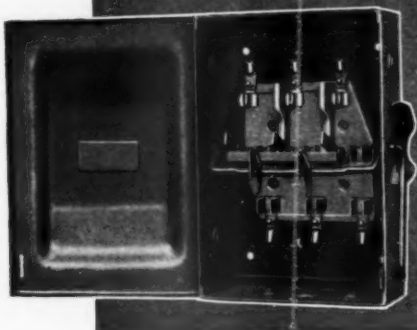
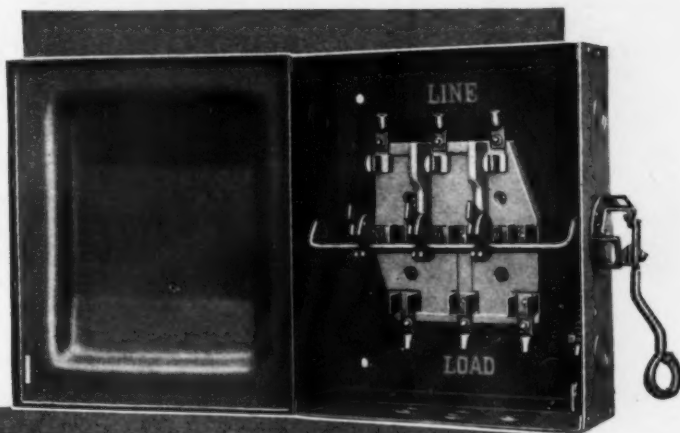
Mohawk may be had in either Indian Black (enamel) or Indian White (galvanized). Ask your jobber or nearest Mohawk Conduit Co. branch.



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CONDUIT CO., INC.
COHOES, NEW YORK

BRANCH OFFICES: NEW YORK - CHICAGO - PHILADELPHIA - BOSTON - INDIANAPOLIS - NORFOLK
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Quick Make C-H Standard Duty Switch Type "C"



Proof against Misdirected Carefulness

C-H Entrance Switch for Lighting Circuits

C-H quality in a lighting circuit entrance safety switch. This C-H Switch has the same general design and construction as the C-H Type C—including molded, crack-proof base. Quick break only but a high quality switch at little cost. Twenty-one sizes from 30 to 100 amps. at 125 and 250 volts—and either solid neutral, 2 or 3 wire.

TIMID operators . . . those who think that slamming in the contacts will somehow injure the switch . . . who cautiously, and oftentimes only partially close the contacts . . . cannot damage this C-H Standard Duty Switch.

Quick *make* assures perfect contact . . . added years of life. Contacts are slammed home by a strong spring. No slow burning of contacts . . . less arcing, for this switch is quick break, too.

Of type "C" construction, the C-H Standard Duty Switch has many other features which assure its long life . . . and its easy installation anywhere. Molded, crack-proof case . . . heavy insulation . . . careful workmanship throughout . . . and smaller, more convenient case . . . these features are typical of its design.

It is made in 6 sizes from 30 to 400 amps. at 250 and 600 volts . . . and carried by reliable jobbers. Our catalog describing this and other C-H T-V Switches for every service will be sent on request.

CUTLER-HAMMER, Inc.

The Trumbull-Vanderpoel
Elec. Mfg. Co., Subsidiary

1307 St. Paul Avenue
MILWAUKEE - WISCONSIN

CUTLER HAMMER

High Quality Safety Switches For Every Service

(9472)

Wadsworth			
30 Amp. Switches	30 Amp. Switches	30 Amp. Switches	
No.	Price	Number	Price
25	\$2.20	322	\$ 0.20
26	2.65	331	4.85
27	2.50	332	0.55
30	1.55	340	4.75
31	1.55	341	5.05
33	1.65	360	3.20
38	2.50	361	4.55
39	3.75	362	4.15
131	3.90	370	4.15
132	3.30	372	4.95
133	3.90	380	5.05
141	4.15	382	5.15
142	3.75	392	5.45
143	4.15	440	6.20
144	4.55	441	6.55
145	4.95	443	6.55
151	3.40	461	7.05
152	3.00	462	6.70
153	3.40	463	7.05
154	4.45	464	6.70
211	4.15	633	5.35
212	3.75	734	11.15
213	4.15	1013	4.20
214	3.75	1014	6.10
221	2.65	1202	3.95
223	2.40	1212	4.25
224	3.00	1223	4.75
238	3.75	1250	3.65
241	5.45	1322	4.15
242	5.10	1323	4.75
243	5.45	1402	3.95
244	5.10	1403	4.25
271	4.00	1401T	4.55
272	4.00	1402T	4.55
273	4.70	1403T	4.80
274	4.40	1411T	5.15
284	5.20	1412	4.25
292	4.00	1412T	5.20
294	5.75	1423	4.75

Wadsworth			
60 Amp. Switches	100 Amp. Switches	200 Amp. Switches	
No.	Price	Number	Price
161	\$ 9.60	102	\$15.70
162	9.15	110	16.55
163	11.80	111	16.55
171	9.35	112	15.70
172	9.15	113	18.95
503	11.45	513	17.25
1024	11.40	1033	11.55
1762	16.30	1034	16.50
1763	22.75	1712	27.35
1764	21.45	1713	35.40
1769	21.70	1714	35.00
1800	15.70	1719	30.90
1802	16.55	1900	24.35
1803	17.40	1902	25.20
1812	17.40	1903	26.10
1830	19.10	1912	26.10
1834	20.90	1930	28.70
1843	17.40	1934	30.50
1843	18.25	1942	26.10
1851	16.55	1943	27.90
2030	15.65	1951	26.10
2034	17.40	2130	25.20
2042	15.70	2134	26.95
2043	16.55	2142	24.40
2051	14.80	2143	26.10
2662	8.70	2151	24.40
2664	13.30	2614	25.00
3662	17.05	3512	14.65
3663	22.05	3513	17.75
3664	24.00	3514	25.60
3669	22.05	3519	17.75
3562	9.75	3612	24.85
3563	11.55	3613	31.95
3564	13.75	3614	35.90
3569	11.55	3619	31.95

Wadsworth			
400 Amp. Switches			
No.	Price	Number	Price
642	\$55.45	522	\$19.80
643	67.65	523	24.95
742	61.65	722	37.05
743	75.13	723	51.90
744	91.30	724	57.35
749	75.15	729	52.00
1052	36.30	1042	14.20
1053	47.85	1043	22.00
1054	66.00	1044	31.35
2542	49.50	2622	18.15
2543	61.00	2623	21.45
2544	86.65	2624	40.85
3542	54.45	2629	19.80
3543	78.40	3522	27.20
3544	94.05	3523	31.15
3549	78.35	3524	43.15

EXTRA END WALLS—SHUTTERS—TRIMS—ETC.					
Wadsworth					
Type of Trim					
For 30 Amp. 125 Volt Switches	Flat	Extended	Shutter	Knock-out & Shutter	Shutter
30	\$.30	\$.50	\$.30	\$.30	\$.17
60	.50	.65	.50	.35	.25
100	.65	.83	.65	.45	.25
125	.75	.90	.75	.50	.25
200	.82	1.00	.82	.45	.25
250	.90	1.10	.90	.50	.25
300	1.00	1.15	1.00	.50	.25
400	1.10	1.25	1.10	.55	.25

Murray Switches

ENTRANCE SWITCHES			
With End Wall			
Amps.	Volts	Description	Price
30	125	For Plug Fuses 1 Blade 1 Fuse	630 \$ 1.50
30	125	" " " 2 " 2	231 1.65
30	125-250	" " " " " "	831 2.10
30	125-250	For 2 Cartridge Fuses	830 3.55
60	250	" 3 Cart. Fuses-3 Phase-3 Wire	760 17.40
100	250	" " " " " " " "	769 20.00
100	250	" " " " " " " "	710 29.05
200	250	" " " " " " " "	712 29.95
200	250	" " " " " " " "	720 60.75
200	250	" " " " " " " "	722 68.85

ACCESSIBLE MAIN FUSE SWITCHES

Meter Test Type			
Amps	Volts	Description	Price
30	125	For Plug Fuses One Fuse	755 \$ 3.65
30	125	" " " 2 & 3 Fuse	748 3.95
30	250	" " " One Fuse	738 4.20
30	250	" " " Two Fuse	737 4.85
60	250	" " " For 1 Fuse	766 15.95
60	250	" " " For 2 Fuse	764 16.85
100	250	" " " For 2 Fuse	718 25.60

Meter Test			
Amps	Volts	Description	Price
60	250	For 3 Cart. Fuses-3 Phase-3 Wire	767 \$19.90
60	250	" " " 3 " 4 " "	768 23.00
100	250	" " " 3 " 3 " "	711 30.00
100	250	" " " 3 " 3 " "	714 32.45
200	250	" " " 3 " 3 " "	721 64.80
200	250	" " " 3 " 3 " "	723 72.90

"UNISAFTI"

(Universal Standardized Switches)

All 30 Amps.

Branches & Fusing

Price

Number Pole Fuse Neutral

234 2 Single 1-2-Wire 2 Fuses \$3.25

235B 2 2-2- " 2 " 3.25

236 2 4-2- " 2 " 4.30

237 3 Two Solid 1-3- " 2 " 3.75

237 2 " " 1-2- " 2 " 3.75

237 3 " Solid 2-2- " 2 " 3.75

238 3 " Solid 4-2- " 4 " 4.85

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Switches

ALL-N-ONE SWITCHES

Live Front No.	Circuits	Double Fuse Price	Dead Front No.	Circuits	Single Fuse Price
A-2	2	\$3.45	AD-3	3	\$ 5.40
A-3	3	3.80	AD-4	4	5.85
A-5	5	4.15	AD-5	5	6.75
A-7	7	6.60	AD-6	6	7.95
A-9	9	6.95	AD-8	8	9.30
			AD-10	10	11.25

RANGE & WATER HEATER SWITCHES

60 Amp.—125 Volts

No. 501	No. 502	No. 503	No. 504	No. 505	No. 506	No. 507
\$9.90	\$15.25	\$23.60	\$26.75	\$20.25	\$8.90	\$13.90

MOTOR STARTING SWITCHES

MS-1 30 Amp. 3 Pole 220 Volts Quick Make & Break Toggle.....	\$6.00
C-3P 30 Amp. 3 Pole 250 Volts Not Toggle.....	7.10

SAFE LINE SERVICE SWITCHES

No. 904 Single Pole 4 Circuits with Transformer.....	\$7.85
" " " " " " without Transformer.....	6.60

INDUSTRIAL TYPE

Quick Break—Single Throw—Fused Bottom

Amp.	No.	Price	No.	Price	No.	Price
30	3022	\$ 5.40	3032	\$ 6.75	3042	\$ 7.90
60	6022	8.10	6032	9.00	6042	11.65
100	10022	11.65	10032	13.30	10042	24.10
200	20022	18.25	20032	24.10	20042	39.75
400	40022	44.85	40032	61.50	40042	87.20
600	60022	78.00	60032	91.30	60042	131.10

Amp.	No.	Price	No.	Price	No.	Price
30	3025	\$ 9.00	3035	\$ 8.55	3045	\$ 12.45
60	6025	9.90	6035	10.80	6045	13.30
100	10025	13.30	10035	15.80	10045	26.60
200	20025	26.60	20035	30.00	20045	43.20
400	40025	68.00	40035	74.70	40045	116.20
600	60025	96.30	60035	103.00	60045	167.70

Amps.....	30 Amp.	60 Amp.	100 Amp.	200 Amp.
Number.....	3026	6026	10026	20026
Price.....	\$15.30	\$15.80	\$25.60	\$38.60

Not Fused—Quick Break

Amps.	Pole	Volts	Number	Price	Number	Price
30	2	250 DC	3022N	\$ 5.00	3022DN	\$ 10.80
30	3	250 DC	3032N	6.30	3032DN	12.45
30	2	500 AC	3025N	8.65	3025DN	13.15
30	3	500 AC	3035N	8.10	3035DN	16.60
60	2	250-500	6025N	8.10	6025DN	13.15
60	3	250-500	6035N	8.55	6035DN	16.60
100	2	250-500	10025N	11.50	10025DN	24.90
100	3	250-500	10035N	11.25	10035DN	30.70
200	2	250-500	20025N	17.00	20025DN	34.85
200	3	250-500	20035N	20.75	20035DN	50.60
400	2	250-500	40025N	49.80	40025DN	99.60
400	3	250-500	40035N	58.00	40035DN	132.80
600	2	250-500	60025N	83.00	60025DN	141.00
600	3	250-500	60035N	99.60	60035DN	163.50

S-SUNDRIES

STEEL WOOD SCREWS

Flat Head

Length	Number Per Dozen	Up To 4	No. 5	No. 6	No. 7	No. 8
1/4"	"	\$.05	\$.05	\$.05	\$.05	\$.05
1/2"	"	.05	.05	.05	.05	.05
3/4"	"	.05	.05	.05	.05	.05
1"	"	.05	.05	.05	.05	.05
1 1/4"	"	.05	.05	.05	.05	.05
1 1/2"	"	.05	.05	.05	.05	.05
1 3/4"	"	.05	.05	.05	.05	.05
2"	"	.05	.05	.05	.05	.05
2 1/4"	"	.05	.05	.05	.05	.05
2 1/2"	"	.05	.05	.05	.05	.05
2 3/4"	"	.05	.05	.05	.05	.05
3"	"	.05	.05	.05	.05	.05
3 1/4"	"	.05	.05	.05	.05	.05
3 1/2"	"	.05	.05	.05	.05	.05
3 3/4"	"	.05	.05	.05	.05	.05
4"	"	.05	.05	.05	.05	.05

Length	Number Per Dozen	No. 9	No. 10	No. 12	No. 14	No. 16
1/4"	"	\$.05	\$.05			
1/2"	"	.05	.05			
3/4"	"	.05	.05			
1"	"	.05	.05			
1 1/4"	"	.05	.05			
1 1/2"	"	.05	.05			
1 3/4"	"	.05	.05			
2"	"	.05	.05			
2 1/4"	"	.05	.05			
2 1/2"	"	.05	.05			
2 3/4"	"	.05	.05			
3"	"	.05	.05			
3 1/4"	"	.05	.05			
3 1/2"	"	.05	.05			
3 3/4"	"	.05	.05			
4"	"	.05	.05			

BRASS SCREWS

Round, Flat or Oval Head

Length	Number Per Dozen	Up to 4	No. 5	No. 6	No. 8	No. 9
1/4"	"	\$.06	\$.06	\$.07	\$.08	
1/2"	"	.06	.07	.08	.09	\$.10
3/4"	"	.07	.07	.08	.10	.11
1"	"	.07	.07	.08	.11	.12
1 1/4"	"	.08	.08	.09	.12	.13
1 1/2"	"			.11	.13	.15
1 3/4"	"			.14	.15	.17
2"	"				.20	.22
2 1/4"	"					
2 1/2"	"					
2 3/4"	"					
3"	"					

Length	Number Per Dozen	No. 10	No. 12	No. 14	No. 16	No. 18
1/4"	"	\$.11				
1/2"	"	.12	\$.14			
3/4"	"	.14	.15			
1"	"	.15	.18	\$.22		
1 1/4"	"	.16	.20	.24		
1 1/2"	"	.20	.25	.32		
1 3/4"	"	.26	.30	.40	\$.50	\$.60
2"	"	.30	.35	.45	.55	.65
2 1/4"	"	.33	.40	.50	.65	.75
2 1/2"	"		.45	.60	.70	.85

For Gross Lots Multiply dozen price 7 times.

LAG SCREWS

Length	3"	3 1/2"	4"	4 1/2"	5"	6"
1/2" Price Each	\$.05	\$.05	\$.05	\$.05	\$.06	\$.10
1" Price Each			.07	.08		

STRAPS—CLIPS OR CLAMPS

Without Screws, For Pipe

	1/4-3/4"	1/2"	3/4"	1"	1 1/4"
Tinned Straps 2 Hole Price Each	\$.01	\$.01	\$.01	\$.01	\$.01 1/2
Light Steel Straps-1 Hole Price Each	.03	.03	.05	.07	.08
Mall. Iron Straps-1 Hole Price Each		.07	.08	.10	.15
P & S Conduit Clips With Bolts		.10	.14	.18	.22
		1 1/4"	2"	2 1/4"	3"
Tinned Straps 2 Hole Price Each		\$.02	\$.03	\$.04	\$.05
Light Steel Straps-1 Hole Price Each		.10	.15	.30	.45
Mall. Iron Straps-1 Hole Price Each		.25	.45	.70	.95
P & S Conduit Clips With Bolts		.26			

SOLDER

	40-60 Bar or Wire	50-50 Bar or Wire	Resin Core	Ribbon 30-70	Allen Alumi-Flux
Per Pound.....	\$.70	\$.85	\$ 1.15	\$.80	\$ 2.70
Per Ounce.....	.10	.10	.15	.10	.20

SOLDER PASTE

Make	2 oz. Cans	2 oz. Tubes	4 oz. Cans	Half Pound Cans	One Pound Cans
Allen.....	\$.30	\$.40	\$.55	\$.90	\$ 1.50
Burnley.....	.20		.30	.40	.70
Crescent.....	.25		.35	.55	1.00
G. E.....	.20			.80	1.50
Highland.....	.30			.80	1.50
Nokorode.....	.20			.80	1.50

SOLDERING SALTS

	1/2 Lb.	1 L.
Burnley.....In cans each.....	\$.65	\$ 1.00
Eaco....." " ".....	.40	1.50
Yeager....." " ".....	.65	1.00
McGill Crescent....." " ".....	.75	1.00
Nokorode.....In cans each.....		.85
Allen.....In Bottles each.....	.75	1.00

SOLDER STICKS

	Price
Burnley.....	\$.20
Eaco.....	.25
Samson.....	.30
Allen.....	.40
Crescent.....	.25
GE.....	.25

FIXTURE STUDS

	3/4"	1"
Four Prong Fixture Studs Less Bolts.....	\$.10	\$.15
Rolts Extra.....	.01	.01
No Bolt Fixture Studs.....	.10	.15

STAPLES

Staples Insulated Nails Per Dozen.....	\$.08
Leather Nail Heads Per Dozen.....	.05
Milonite Insulated Nails Per Dozen.....	.05

TAPE

FRICTION TAPE

		Per Pound	Per Half Pound	Per 2 Ounce	Per 1 Ounce	Per Foot
Amazon Friction		\$.60	\$.30	\$.10	\$.05	\$.01
Adhere		.65	.35	.10	.05	.01
Bulldog		.70	.40	.10	.05	.01
Cataraft		.65	.30	.10	.05	.01
Commodity		.65	.30	.10	.05	.01
Dutch Brand		.65	.35	.10	.05	.01
Everstick		.65	.30	.10	.05	.01
Eaco		.95	.50	.15	.10	.02
G. E.		.65	.30	.10	.05	.01
Grimsbow		1.05	1.00	.20	.10	.02
Holdfast		1.00	.55	.15	.10	.01
Holdrite		.75	.35	.10	.05	.01
I X L		.65	.35	.10	.05	.01
Illinois		.65	.30	.10	.05	.01
Johns Manville Armature		1.75	.90	.20	.10	.02
" " Iomanco		1.15	.60	.15	.10	.02
" " White		1.35	.70	.20	.10	.02
" " No. 3 Now No. 5		.75	.40	.10	.05	.01
" " No. 6 " " 40		.60	.30	.10	.05	.01
Jason		.60	.30	.10	.05	.01
Leader		.70	.35	.10	.05	.01
Manson		1.20	.65	.20	.10	.02
Magnet		.75	.40	.10	.05	.01
O. K.		.60	.30	.10	.05	.01
P & B.		1.00	.55	.15	.10	.02
Peerless		.60	.35	.10	.05	.01
Service		.90	.50	.15	.10	.02
Stanpat		.55	.30	.10	.05	.01
Sticka		.55	.30	.10	.05	.01
Victor W. E.		.55	.30	.10	.05	.01
Vim Grav.		1.10	.60	.15	.10	.02
W. E. Railway Signal		1.00	.45	.15	.10	.02

RUBBER TAPE

		\$.95	\$.45	\$.15	\$.10	\$.04
Amazon Rubber		1.20	.65	.15	.10	.04
Alexall		1.15	.60	.15	.10	.04
Alpha		.70	.35	.10	.05	.03
Brooklyn		.70	.40	.10	.05	.03
Cataraft		.70	.35	.10	.05	.03
Dutch Brand		.60	.30	.10	.05	.03
Eleco		.60	.35	.10	.05	.03
G. E.		1.00	.60	.15	.10	.04
Holdfast		.65	.35	.10	.05	.03
Imperial		.60	.35	.10	.05	.03
Illinois		1.55	.80	.20	.10	.04
Ohonite		.75	.40	.10	.05	.03
Para		.70	.35	.10	.05	.03
Pittsburgh		.65	.30	.10	.05	.03
Relio		.55	.30	.10	.05	.03
Security		.65	.35	.10	.05	.03
U. S. Rubber		.55	.30	.10	.05	.03
W. E. Victor						

TIME SWITCHES

BUCKEYE TIME SWITCHES

	Without Term. Box	With Term. Box
110 or 220 V.-Sgle or Dble Pole-10 A.	\$19.50	\$28.00
" " " " " " 20 A.	23.00	30.00
" " " " " " 30 A.	26.00	32.00
" " " " " " 50 A.	30.00	36.00
Specials	26.00	30.00
Buckeye Combination Time Switch Remote Control Unit Complete		\$ 70.00
AC Capacity up to 125A.-110 or 220 Volt-2 & 3 Wire		125.00
DC		

HARTFORD TIME SWITCHES

	10 Amp.	20 Amp.	35 Amp.	50 Amp.
Type B Single or Double Pole	\$36.00	\$39.00	\$42.00	\$50.00
Type B Triple Pole	38.00	41.00	45.00	
Type C & D Single or Double Pole	39.00	42.00	47.00	52.00
Type C & D Triple Pole	41.00	45.00	49.00	
Type G Apt. Hall Light Control D.P.	38.00		60.00	

PARAGON TIME SWITCHES

	Indoor	All 250 Volt	Outdoor
No. 1—\$47.00		30 Amp. Double Pole	No. 2—\$47.00
No. 1—59.00		50 " " "	No. 2—59.00
No. 1—59.00		30 " Triple "	No. 2—59.00
No. 3—45.00		20 " Double "	No. 4—45.00
No. 3—40.00		10 " " "	No. 4—40.00
No. 3—45.00		10 " Triple "	No. 4—45.00
Sunday Shut Off—Extra			\$5.00
Attachment for Turning on earlier			5.00

RELIANCE & RACINE SWITCHES

	10 Amp.	20 Amp.	30 Amp.	50 Amp.
Racine Type 1R-2R	\$19.50	\$23.00		
Reliance Type 10-20-30-50	28.00	30.00	\$32.00	\$36.00
Reliance Type 15 Triple Pole		32.00		

SAUTER TIME SWITCHES

No.	Amps.	Poles	Description	Price
101	2	1	Clock operated, key wound 40 day clocks	\$ 52.00
111	10	1	" " " " " " " "	56.00
121	15	2	" " " " " " " "	60.00
201	2	1	Self winding	74.00
211	10	1	" " " " " " " "	80.00
221	10	2	" " " " " " " "	85.00
321	25	2	Motor operated self winding clocks	105.00
341	40	2	" " " " " " " "	110.00
401	100	2	Motor operated Oil Break self winding clocks	190.00
431	200	2	" " " " " " " "	250.00
461	300	2	" " " " " " " "	280.00

TORK TIME SWITCHES OR CLOCKS

Description	Indoor	Outdoor	Switchboard
Single Pole 15 Amp. 125 Volt	#115—\$20.00	#215—\$25.00	#015—\$19.00
Double " 30 " 250 "	#130—25.00	#230—30.00	
Single " Double Throw	#166—25.00		
Double " Momentary Contact	#111—25.00		
Dble. Pole 30 A. 250 V. Windless	#730—60.00	#830—65.00	#930—58.00
Combination Type—with Clock and Contactor			
For AC Only	Description	For DC Only	
No. 76062 \$50.00	60 Amps. 2 Pole	No. 75062 \$ 70.00	
No. 76102 75.00	100 " 2 Pole	No. 75102 125.00	

ZENITH TIME SWITCHES

Amp. Volts Pole	Closed Face Numbers	Price	Open Face Numbers	Price	Open Flush Numbers	Mount Price
10 110 Sgl.	T-S10	\$20.00				
10 220 Sgl.						
10 220 Dbl.	110-MC	28.00	115-MC	\$30.00	125-MC	\$34.00
20 110 Sgl.	1101	20.00	1151	22.00	1251	26.00
20 110 Sgl.	110-ABCG	26.00	115-ABCG	28.00	125-ABCG	32.00
20 220 Dbl.	1102	23.00	1152	25.00	1252	29.00
20 220 Dbl.	110-B&G2	30.00	115-B&G2	32.00	125-B&G2	36.00
20 220 Tri.	11023	28.00	11523	30.00	12523	34.00
30 220 Dbl.	1103	25.00	1153	27.00	1253	31.00

TRANSFORMERS

BELL & TOY TRANSFORMERS

Name	Style	Watt	Secondary Volts	50 to 133 Cycle No.	Price	25 to 40 Cycle No.	Price
ED-WARDS	Steel Clad Bell	25	Single	86	\$ 1.30	86	\$ 1.50
	" " "	25	Three	86T	1.55	86T	1.75
	Porcelain Bell	25	Single	87	1.55	87	1.75
	Out. Box Bell	25		86ER	1.55	86ER	1.75
	Heavy Duty	50	8-10-24	88	4.60	88	5.10
	" " "	75		89	6.95	89	7.65
	" " "	100		90	8.10	90	9.00
	Toy	50	3 to 18	870	3.85	870	4.60
	" " "	75	3 to 24	871	6.25	871	7.65
	" " "	100	2 to 30	872	9.50	872	11.40

G. E.	Bell Residence	12 Volt	2332	1.30	102340	1.60
	Box Type	12 " "	2488	1.45	2490	1.60
	Heavy Duty	50 8-16-24	2333	5.10	2339	7.10
	" " "	100 10-20-30	2334	8.05	2340	11.20

HEMCO	Mold. Single	25 8 Volts	221	1.50		
	Mold. 3 Circuit	25 6 to 18V.	222	2.00		
	Steel Sgle. Cir.	25 8 Volts	225	1.45		
	Steel 3 Circuit	25 6 to 18V.	226	1.65		
	Box Type Sgle. Cir.	25 8 Volts	227	1.50		
	Box Type 3 Cir.	25 6 to 18V.	228	2.00		

	Wizard	25	10 Volt	230-101	1.30	230-102	1.50
	Nucode	25	11 Volt	230-111	1.45	230-112	1.65
	Tri-Volt	25	6 to 18V.	230-121	1.45	230-122	1.65
	Porcelain			230-131	1.45		***
JEF- PERSON	Little Jeff Toy	50	5½-13	535-101	3.65	535-102	4.30
	Midget Toy	75	5½-22	535-121	4.50	535-122	5.40
	Model 2 Toy	100	5½-23	535-131	6.65	535-132	8.25
	Model 3 Toy	150	1-30	535-141	8.55		
	Heavy Duty A	50	6 to 20	231-101		231-102	7.10
	" " B	75	6 to 20	231-111	7.60	231-112	10.10
	" " C	125	6 to 24	231-121	10.15	231-122	12.80
	" " E	250	6 to 24	231-141	20.80	231-142	25.65

KILLARK	Blue Bell	10 8 Volt	6166	1.25		
	Tri-Volt	20 6 to 16	6163	1.45	6126	1.40
	Box Type	10 8 Volt	7166	1.45		
	Porcelain Case	10 8 Volt	4166	1.45		

RITTENHOUSE	A Single Volt	25 8 Volt	A-1	1.30	A-1	1.50
	A Three " "	25 6 to 14	A-13	1.55	A-13	1.75
	B " " "	50 6 to 14	B-1	4.10	B-1	4.50
	C " " "	75 8 to 24	C-1	6.00	C-1	6.75
	D " " "	125 15 to 40	D-1	9.75	D-1	12.00
	Porcelain	25 8	AP-1	1.45	AP-1	1.75
	Box Type	25 8	OB-1	1.50	OB-1	1.75
	Toy 1-Junior	50	No. 1	3.75		
	" 2-Senior	100	No. 2	6.25		
	" 3-Niagara	150	No. 3	9.50		

STANLEY	S-1 Sgle. Volt	15	S-1	1.30		
	S-3 3 Volt	15	S-3	1.40		
	D-1 Sgle. Volt	25	D-1	1.50		
	D-3 3 Volt	25	D-3	1.70		
PATERSON	HD-1 3 Volt	50	HD-1	5.35		
	EHD 3	100	EHD-1	6.65		
	" "	200		18.00		
	" "	300		21.00		

NOTE: For 220 Volt Transformers add 20% to above prices.

WIRES

RUBBER COVERED WIRES

	Special Price on No. 14 S.B. Wire	Per Foot
In less than Coil Lots		\$.01 1/4
In Coil Lots		.01 1/4
Other Sizes	No. 18	No. 16
Fixture Wire Light	\$.01	\$.01 1/4
" Heavy	.01 1/4	.01 1/4
Solid Single Braid	.01 1/4	.01 1/4
" Double	.01 1/4	.01 1/4
		See Above
		\$.02

Wires

Wires

RUBBER COVERED WIRE—Continued

	Price Per Foot		
	No. 18	No. 16	No. 14
Stranded Sgle. Braid.....	.01 $\frac{1}{4}$	.01 $\frac{1}{4}$	.02
" Dble. ".....			.02 $\frac{1}{4}$
Duplex Single Braid.....			.04 $\frac{1}{2}$
" Double ".....			.05 $\frac{1}{4}$
Other Sizes			
	No. 12	No. 10	No. 8
Fixture Wire Light.....			
" Heavy.....			
Solid Single Braid.....	.02 $\frac{1}{4}$	.03 $\frac{1}{4}$	.05
" Double ".....	.02 $\frac{1}{4}$	.03 $\frac{1}{2}$	.05
Stranded Sgle. Braid.....	.03	.04	.05 $\frac{1}{2}$
" Dble. ".....	.03 $\frac{1}{2}$	.04 $\frac{1}{4}$	.05 $\frac{1}{2}$
Duplex Single Braid.....	.06	.07 $\frac{1}{4}$	.08 $\frac{1}{4}$
" Double ".....	.06 $\frac{1}{4}$	.08 $\frac{1}{4}$	.09 $\frac{1}{4}$

LARGER SIZES DOUBLE BRAID STRANDED

Size	Price Per Foot
No. 8 D. B.....	.06
No. 6 D. B.....	.08 $\frac{1}{2}$
No. 4 D. B.....	.11
No. 3 D. B.....	.13
No. 2 D. B.....	.15
No. 1 D. B.....	.21
No. 0.....	.25
No. 00.....	.50
No. 000.....	.36 $\frac{1}{2}$
No. 0000.....	.44 $\frac{1}{2}$

CIRCULAR MILL CABLE

Size	Price Per Foot
250,000 C. M.....	.53
300,000 C. M.....	.63
350,000 C. M.....	.72
400,000 C. M.....	.81
450,000 C. M.....	.93
500,000 C. M.....	1.00
600,000 C. M.....	1.21
700,000 C. M.....	1.40
750,000 C. M.....	1.48
800,000 C. M.....	1.60
900,000 C. M.....	1.78
1,000,000 C. M.....	1.95

WEATHERPROOF WIRE

Triple Braid

	No. 18	No. 16	No. 14	No. 12	No. 10	No. 8	No. 6
Per Pound Solid.....	\$.64	\$.60	\$.58	\$.56	\$.51	\$.48	\$.46
" Stranded.....					.59	.53	.50
Per Foot Solid.....	.01	.01 $\frac{1}{2}$	.02	.02 $\frac{1}{4}$	.03	.04	
" Stranded.....	.01 $\frac{1}{4}$	.01 $\frac{1}{2}$	.02 $\frac{1}{4}$	.03	.03 $\frac{1}{2}$	.04 $\frac{1}{2}$	
Number Feet Per Pound.....	90	70	40	30	20	13	

EXTRAS—For slow burning W. P. Wire—Per Pound Extra..... \$.01
 For Twisted Pair W. P. Wire—Per Pound Extra..... .02
 For Double Braid W. P. Wire—Per Pound Extra..... .01
 For Medium Hard Drawn—Per Pound Extra..... .00 $\frac{1}{2}$
 For Armored Cables See Page PL-9.

ANNUNCIATOR—TELEPHONE WIRE, ETC.

	Description	No. 18	No. 16
Fixture	Solid	.01	.01 $\frac{1}{4}$
"	Light $\frac{1}{4}$ Per Foot.....		
"	Heavy $\frac{1}{4}$ " ".....	.01 $\frac{1}{4}$	.01 $\frac{1}{2}$
Wire	Stranded Light $\frac{1}{4}$ " ".....	.01 $\frac{1}{4}$	.01 $\frac{1}{2}$
"	Heavy $\frac{1}{2}$ " ".....	.01 $\frac{1}{2}$	.01 $\frac{3}{4}$

Annunciator Wire				
Description	No. 18	No. 16	No. 14	No. 12
Single				
Per Pound.....	.68	.66	.63	
Per Foot.....	.00 $\frac{1}{2}$	.00 $\frac{1}{4}$	.01	
Twisted or Duplex				
Per Pound.....	.70	.68	.66	
Per Foot.....	.01	.01 $\frac{1}{4}$	.02	

Office & Damp Proof Wire				
Description	No. 18	No. 16	No. 14	No. 12
Single				
Per Pound.....	.86	.81	.79	
Per Foot.....	.01	.01 $\frac{1}{4}$	.01 $\frac{1}{2}$	
Twisted or Duplex				
Per Pound.....	.89	.83	.81	
Per Foot.....	.02	.02 $\frac{1}{4}$	.03	

"Deltabeston" or similar				
Description	No. 18	No. 16	No. 14	No. 12
Single Stranded Black Per Foot.....	.03	.03 $\frac{1}{2}$	\$.04	\$.05
Single Stranded Colored Per Foot.....	.04	.04	.05	.06
Single Glazed Cotton Per Foot.....	.04	.04	.05	.06
Single Artificial Silk Per Foot.....	.04 $\frac{1}{2}$	.05	.05 $\frac{1}{2}$	.07
Duplex Glazed Cotton Per Foot.....	.08	.09	.10	
Duplex Artificial Silk Per Foot.....	.09	.10	.11	
Twisted Pair Glazed Cotton Per Foot.....	.08	.09	.10	
Twisted Pair Artificial Silk Per Foot.....	.09	.10	.11	

Asbestos Range Wire				
Description	No. 18	No. 16	No. 14	No. 12
Asbestos Range Wire or Switch Board Wire				
Per Foot.....	\$.10	\$.12	.13	.15

COVERED TELEPHONE WIRES

	No. 22	No. 20	No. 19	No. 18	No. 17	No. 16	No. 14
Inside Ph'ne Wire Per Ft....	\$.03	\$.03	\$.03	\$.04	\$.04	\$.05	\$.06
Outside " " ".....	.03	.03	.03	.03 $\frac{1}{2}$	.03 $\frac{1}{2}$	.04	.05

GALVANIZED TELEPHONE WIRE

Size BWG	No. 4	No. 6	No. 8	No. 10	No. 12	No. 14
EBB Extra Best Per Pound....	\$.13	\$.13	\$.13	\$.13	\$.14	\$.15
B. B. Best Best " ".....	.12	.12	.12	.12	.13	.14
Steel " " ".....	.11	.11	.11	.11	.12	.13
Weight Per 1000 Feet.....	153	112	74	49	32	19
Weight Per Mile.....	811	590	390	258	170	99

WIRE, MAGNET

Price Per Pound

Size	Single Cotton	Double Cotton	Single Silk	Double Silk	Plain Enamel-ed Cotton	Enamel-ed Single Cotton	Enamel-ed Double Cotton
8	\$.95	\$1.00			\$.95	\$1.00	\$1.05
10	.98	1.02			.97	1.04	1.07
12	1.03	1.05			1.00	1.06	1.09
14	1.05	1.10			1.02	1.08	1.12
16	1.07	1.12	\$1.45	\$1.60	1.05	1.10	1.20
18	1.09	1.15	1.50	1.80	1.08	1.15	1.30
20	1.15	1.25	1.70	2.45	1.10	1.30	1.35
22	1.25	1.35	1.80	2.20	1.12	1.35	1.45
24	1.35	1.50	1.90	2.40	1.15	1.45	1.60
26	1.45	1.70	2.05	2.50	1.27	1.70	1.90
28	1.70	2.05	2.20	3.05	1.40	1.95	2.25
30	1.95	2.35	2.95	3.95	1.50	2.20	2.50
32	2.35	2.95	3.70	5.50	1.70	2.85	3.50
34	2.95	3.65	4.85	7.30	1.80	3.65	4.70
36	3.70	5.05	6.50	9.30	2.25	5.00	5.80
38	5.95	8.50	9.70	16.00			
40	8.65	12.95	15.60	22.40			

NOTE: For odd sizes use half the increase of next larger size.
 For $\frac{1}{4}$ lb. lots use one third of above prices.
 For one ounce lots use one tenth of above prices.

Price Per 100 Feet

Size	Single Cotton	Double Cotton	Single Silk	Double Silk	Enamel-ed Cotton	Enamel-ed Single Cotton	Enamel-ed Double Cotton
8	\$5.00	\$5.25			\$1.70	\$5.25	\$5.35
10	3.00	3.15			2.75	3.15	3.30
12	2.00	2.15			1.80	2.15	2.25
14	1.80	2.00			1.70	2.00	2.20
16	1.00	1.05	\$1.20	\$1.30	.95	1.05	1.20
18	.65	.70	.75	.90	.55	.70	.90
20	.50	.55	.60	.70	.45	.55	.70
22	.35	.40	.45	.50	.30	.40	.50
24	.25	.30	.35	.40	.20	.30	.40
26	.15	.17	.20	.25	.13	.17	.20
28	.10	.15	.15	.20	.10	.15	.18
30	.10	.12	.12	.15	.10	.12	.15
32	.10	.12	.12	.14	.10	.12	.14
34	.10	.12	.12	.14	.10	.12	.14
36	.10	.12	.12	.14	.10	.12	.14
38	.10	.12	.12	.14	.10	.12	.14
40	.10	.12	.12	.14	.10	.12	.14

Note: Prices per 100 feet are higher than per pound rate to cover cost of measuring and should be used only for small lot sales.

LEAD & RUBBER COVERED WIRE AND CABLE

Size	Price Per Foot	Conductor
No. 14		Solid Stranded
No. 12		Solid Stranded
No. 10		Solid Stranded
No. 8		Solid Stranded
No. 6		Solid Stranded
No. 4		Solid Stranded
No. 3		Solid Stranded
No. 2		Solid Stranded
No. 1		Solid Stranded
No. 1/0		Solid Stranded
No. 2/0		Solid Stranded
No. 3/0		Solid Stranded
No. 4/0		Solid Stranded
250,000 C. M. Cable.....		
300,000 C. M. ".....		
350,000 C. M. ".....		
400,000 C. M. ".....		
500,000 C. M. ".....		
600,000 C. M. ".....		
700,000 C. M. ".....		
750,000 C. M. ".....		
800,000 C. M. ".....		
900,000 C. M. ".....		
1,000,000 C. M. ".....		

NOTE: Above prices are based on following quantities:
 No. 16 to No. 8 Less than 100 ft.
 No. 6 and larger less than 50 ft.

Size	Duplex Solid	Duplex Stranded	Three (3) Conductor Solid	Three (3) Conductor Stranded
No. 14	Price Per Foot.....	\$.08	\$.10	\$.17
No. 12	" " ".....	.12	.14	.22
No. 10	" " ".....	.14 $\frac{1}{2}$	.16	.27
No. 8	" " ".....	.17 $\frac{1}{2}$	.20	.33
No. 6	" " ".....	.29	.33	.45
No. 4	" " ".....		.43	.53
No. 2	" " ".....		.58	.73
No. 1	" " ".....		.72	.90
No. 1/0	" " ".....		.83	1.38
No. 2/0	" " ".....		1.00	1.60
No. 3/0	" " ".....		1.18	1.83
No. 4/0	" " ".....		1.46	2.20

NOTE: Above prices are based on following quantities:
 No. 16 to No. 8 Less than 100 ft.
 No. 6 and larger less than 50 ft.

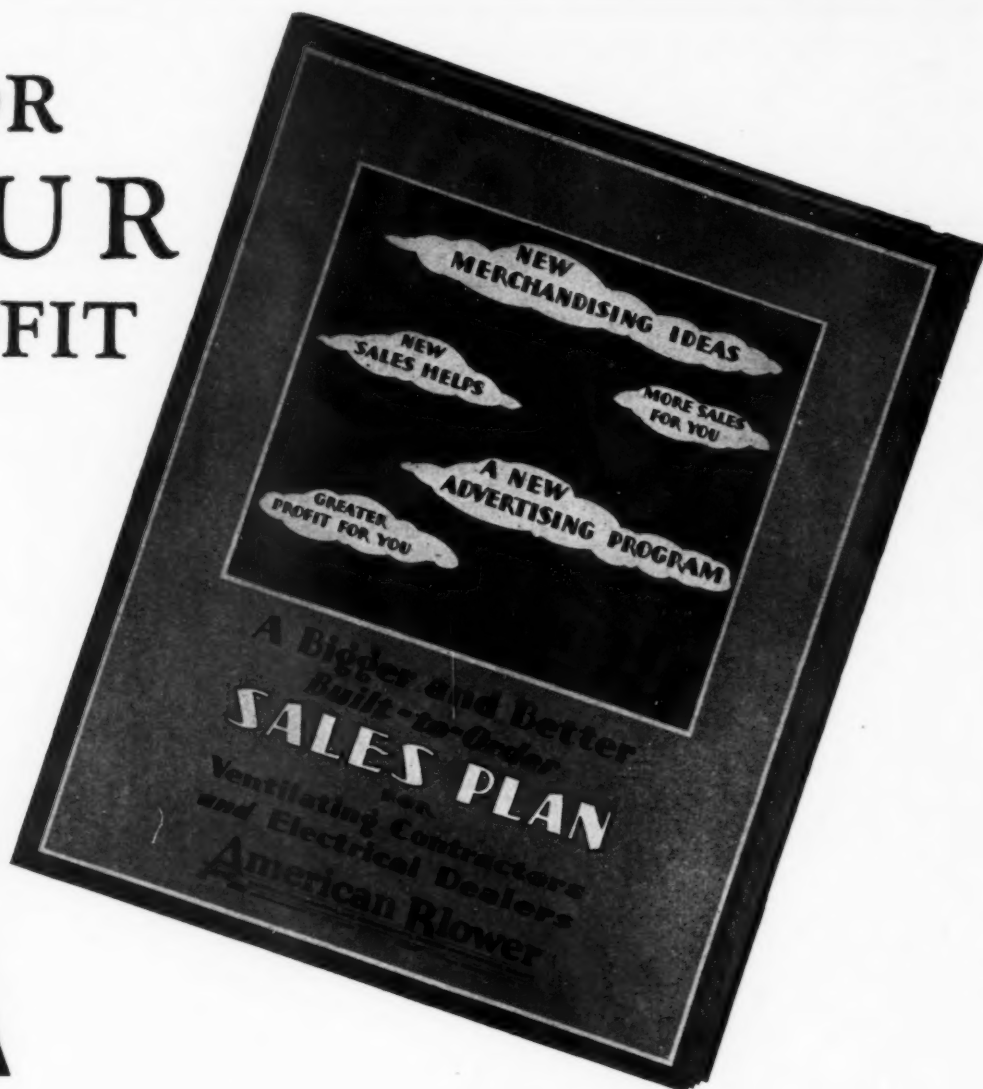
STEEL TAPED PARK CABLE

600 V. only

Size	1 Cond.	2 Cond.	3 Cond.
No. 12 Solid.....	\$.18	\$.26	\$.40
No. 10 ".....	.22	.29	.45
No. 8 ".....	.24	.34	.53
No. 6 Stranded.....	.33	.46	.63
No. 4 ".....	.40	.56	.87

NOTE: Above prices are based on quantities of 100 to 249 feet—Prices on smaller quantities are higher.
 Prices on Park Cable over 600 V. are higher.

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YOUR
PROFIT



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... That tells you *where* and *how* to sell Electric Ventilation—that gives you complete samples of American Blower literature, technical data, and sales helps. Inspect it yourself—visualize your own opportunity in this fast growing business. This sales plan as well as American Blower literature is furnished free to jobbers, dealers and contractors. Send for your copy today.

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this summer for New York City building trades.

The three electrical contractors whom the union refused to recognize, are the Harry Alexander Company, Inc.; the Tucker Electric Company, of which James R. Strong, former president of the Association of Electragists, is president; and the Erickson Engineering Company. These contractors stood with the Building Trades Employers' Association when the Electrical Contractors Association withdrew in a body earlier in the year at the time the electricians were separately granted the 5-day week. Under the new agreement, the union will not discriminate against these three contractors.

The arbitrators will take up the fixture problem to determine whether the union can require all fixtures which its members shall be asked to hang to be union made, or if it can require that fixtures be wired on the job. A strike has been pending against 12 large non-union fixture manufacturers since February 1.

The arbitrators will be Supreme Court Justice C. T. Crain, Robert D. Kohn, an architect and an electrical engineer, to be selected. The first session of the arbitrators will be held on June 20.



ONE HUNDRED YEARS OF SERVICE:—The Herman Andrae Electrical Co., Milwaukee, Wis., is mighty proud of the service record of these four men, whose work is the supervision of jobs in construction. Left to right: Walter Schwarz, 18 years; Al Tellier, 30 years; Jack Tellier, 40 years, and Aaron Bocker, 12 years—100 years in all.



A Superior Industrial Socket

A husky, weatherproof socket, guarding property and profits in millions of places throughout the industrial world. A positive protection against the ravages of dampness, dirt and corrosion.

Heavy interior porcelain insulation and thick exterior shells of copper or aluminum prepare the Benco Sockets for limitless service outdoors or indoors. The unusually strong X-type fitting will "stand a wrench."

The Benco Pull Chain Socket is as weatherproof as the Keyless. A straight-down inner-pull chain control permits a full covering of the mechanism. And where necessary the Benjamin Strain Relief Cord Grip eliminates all strain on the wire connections.

A standard thread on Benco Sockets takes any style of reflector required.

Our nearest office will gladly furnish full information on Benco Sockets and Benco Threaded Accessories.

Benjamin Electric Mfg. Co.

General Offices and Factory

DES PLAINES, ILL.

(Chicago Suburb)

New York Chicago San Francisco

BENJAMIN
TRADE MARK



PAT'D AND PAT. APP. FOR

New!



Catalog Of Money Makers

THE AMCO master line of hanger equipment is complete—beautiful and harmonious in design with 12 striking points of superiority that get the jobs for you Attractive prices allow you the most margin of profit

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1800 E. 38th St., Cleveland, O.

ACT NOW! Mail Coupon Today

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1800 E. 38th St., Cleveland, O.

Send me your new catalog of money makers. My jobber's name and address is.....

My name.....

Address.....

City.....State.....

List of Approved Materials Available

The complete list of approved electrical appliances and materials as inspected by Underwriters' Laboratories issued each year as of April is now available for 1929, and may be had by writing direct to the Laboratories, 207 E. Ohio Street, Chicago.

* * *

Tomlinson New Oregon Field Man

J. R. Tomlinson, one of the prime movers in getting the Oregon Electragists organized, has been selected as field man of the organization for the state, taking up his duties on May 16.



J. R. Tomlinson

The summer meeting of the Oregon Electragists will be held at Eugene, June 17 and 18. The general meeting will have papers on accounting, illumination, codes and inspection, and management.

On the eighteenth, the jobbers and Electragists will fight it out on the golf course. This is the second contest between the two sides, the Electragists winning the first battle last August.

* * *

New Kind of Additional Outlet Campaign

The Electrical League of Erie, Pa., is promoting a new kind of additional outlets campaign to de-

480 Park Avenue, New York City—another fine building using Youngstown-Buckeye Conduit.

Architect—
EMERY ROTH
Electrical Contractor—
S. W. HUROWITZ

Protecting the Wiring for Future Generations

THE NAME Youngstown-Buckeye is a safeguard of conduit quality and a symbol of lasting conduit service. When the electrical wiring of a building is encased in Youngstown-Buckeye Conduit it is soundly protected for future generations. Thousands of buildings are giving tangible proof of the permanence of the protection it affords.

Youngstown-Buckeye Conduit is made to serve for decades. It is tough and rigid, yet bends easily without danger of splitting at the seams; it has a durable, moisture-proof electro-galvanized or enamel coating which will not chip or crack upon bending; and it is easy to thread—easy to install.

It will pay you to use Youngstown-Buckeye Conduit on *your* work, too.

THE YOUNGSTOWN SHEET AND TUBE COMPANY

One of the oldest manufacturers of copper-bearing steel, under the well-known and established trade name "Copperoid".

General Offices—YOUNGSTOWN, OHIO

DISTRICT SALES OFFICES

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BOSTON—80 Federal St.
BUFFALO—Liberty Bank Bldg.
CHICAGO—Conway Bldg.
CINCINNATI—Union Trust Bldg.
CLEVELAND—Union Trust Bldg.
DALLAS—Magnolia Bldg.
DENVER—Continental Oil Bldg.

DETROIT—Fisher Bldg.
KANSAS CITY, MO.—Commerce Bldg.
MINNEAPOLIS—Andrus Bldg.
NEW ORLEANS—Hibernia Bldg.
NEW YORK—30 Church St.
PHILADELPHIA—Franklin Trust Bldg.

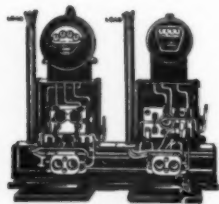
PITTSBURGH—Oliver Bldg.
SAVANNAH—M and M T Terminals
SAN FRANCISCO—55 New Montgomery St.
SEATTLE—Central Bldg.
ST. LOUIS—Shell Bldg., 13th and Locust Sts.
YOUNGSTOWN—Stambaugh Bldg.

LONDON REPRESENTATIVE—The Youngstown Steel Products Co.,
Dashwood House, Old Broad St., London, E. C. England



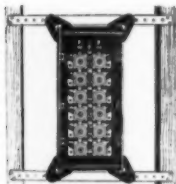
YOUNGSTOWN

the Preference of Electrical Contractors

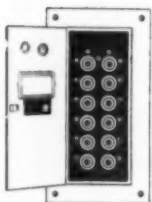


No. 362-372

CHANNEL TYPE SWITCHES
With Branch Circuits Arranged for Single Fusing



No. 12-F
Flush Type
Roughed In
Note Method of
Supporting



No. 12-F
Aluminized Trim
in Place



No. 238

**BRANCH
CIRCUIT
Fuse Type**
Service switch
and branch circuit
fuses in
same cabinet.
Arranged for 2
branch circuits,
single fused.

A steady mounting sales increase is indisputable evidence that Wadsworth Electrical Safety Switches stand upon a positive and substantial foundation—the preference of electrical contractors.

The Line is Complete

The Wadsworth line is complete and gives quality service. Designed by an experienced electrical contractor, who knows your installation problems, they provide easy wiring and better installing facilities.

Many Superior Features

It will pay you to give Wadsworth Electrical Safety Switches a trial Your own practical electrical installation experience will prove to you the Wadsworth features of vast superiority.

On Your Next Job!

For your next installation demand Wadsworth Safety Electrical Switches from your jobber, or write us direct giving us his name. Take immediate advantage of Wadsworth quality and service.

The WADSWORTH ELECTRIC MFG. CO. INC.

Covington, Kentucky.

WADSWORTH

METER SERVICE & INDUSTRIAL TYPE
SWITCHES

velop more wiring installations in both old and new homes.

The league is offering a free duplex convenience outlet, block and plate through any one of its contractor-dealer members. The contractor getting a lead will bear the cost of the material and try to secure the order for installing it and some additional outlets. The campaign price for three outlets is \$12.95 plus \$4.25 for each additional outlet.

* * *

Outlets per Red Seal Home 94.8

During 1928, the number of Red Seal single residences obtained in Kansas City was 153. In these, the average number of outlets per house ran as follows:

Ceiling	25.2
Brackets	16.7
1-Way Switches	16.8
3-Way Switches	9.
Conv. Outlets	26.
Special	1.3
Total Outlets.....	94.8

* * *

Hoover Heads Edison Tribute Committee

President Herbert Hoover has accepted honorary chairmanship and will head the general committee for the international and national celebration of Light's Golden Jubilee, according to an announcement by Paul D. Cravath, President Hoover's message read:

"I have your kind letter of March 30 requesting that I accept honorary chairmanship of the sponsorship committee of the Edison Pioneers.

"I shall be delighted to act in any capacity that will mean a genuine tribute to Mr. Edison's services."

The celebration, commemorating the fiftieth anniversary of the perfection of the incandescent lamp by Thomas Alva Edison will be inaugurated by a series of light festivals beginning at Atlantic City, N. J., on May 31, and will end in a great international tribute to the inventor on October 21. The members of the committee announced to date are: General Robert Lee Bullard, Newcomb Carlton, Paul D. Cravath, John W. Davis, Harvey Firestone, Henry

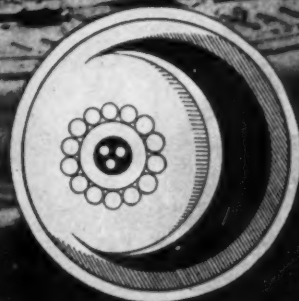
15 CARLOADS OF CRESCENT WIRE HAVE GONE INTO ATLANTIC CITY'S NEW CONVENTION HALL

"A Permanent Monument, Conceived By and Attributed To the Ideals of Atlantic City, Built by Its Citizens and Dedicated to Recreation, Social Progress and Industrial Achievement." So reads the inscription that runs across the face of this Auditorium. And the utilization of the highest grade materials—not the least of them being Crescent Wire—instantly confirms the truth, both in spirit and letter, of those last few words,

"Dedicated to . . . Industrial Achievement"

Engineers: Lockwood, Greene & Co., Inc., Boston, Mass.
Associated Architects: Cook & Blount, New York, N. Y.
Electrical Contractors: Fischback & Moore, New York, N. Y.

CRESCENT
Insulated Wire and Cable Co.
CRESCENT ARMORED WIRE CO.
TRENTON N. J.





GREATER REFLECTOR PROFITS!



More Sales — Greater Profits

There is more profit for you in each job of Lang's Reflectors installed. One good job will sell many more for you. The ease of installation cuts down your labor costs.

Satisfying Your Customers

They will like the clearer whiter light which brings out the truer colors of their merchandise. Merchants like the neat designs of these reflectors. They will recommend the reflector and you to other merchants.

Write for catalogue and discounts

**Better
Window**



**Display
Lighting**

LANG'S DAYLIGHT, INC.
1833 E. 55th Street
CLEVELAND, OHIO.

Ford, James W. Gerard, Clarence H. Mackay, Andrew Mellon, John D. Rockefeller, Jr., and Charles M. Schwab.

* * *

Vote to Curb Bid Peddling

Contractor members of the Metropolitan Electrical League of Boston voted to have the league directors consider an agreement with the other building trades to attempt to curb price cutting and trading of bids after submission to the general contractor.

* * *

Discuss Credit Regulation

One entire session of the Annual Convention of the National Electrical Credit Association held in St. Louis, Mo., May 16 and 17, was devoted to the subject of cooperative credit regulation. C. H. McLean, Graybar Company, Kansas City, spoke on "Help the Contractor," and W. R. Herstein, General Electric Supply Corp., Memphis, on "Practical Considerations for Improvement of Credit Conditions."

A discussion on "Cooperative Credit Activities" was led by S. C. Greusel, G-Q Electric Co., Milwaukee.



NEW MANAGING DIRECTOR, PHILADELPHIA LEAGUE—George R. Conover has just been appointed managing director of the Electric Club of Philadelphia. For the past eleven years he has been connected with the Public Service Electric & Gas Company of New Jersey. He was president of the Electrical League of South Jersey in 1928.

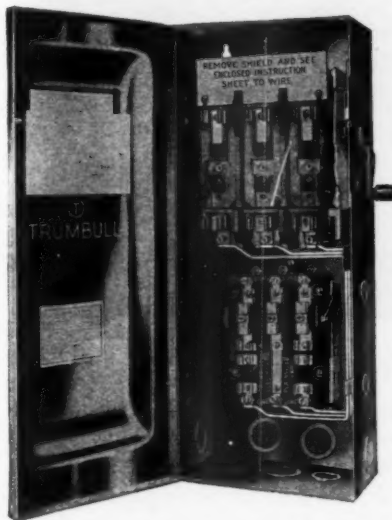
Ⓣ Just Push the Button! Ⓣ at booths 516-518

N. E. L. A. CONVENTION—Atlantic City, June 3-8
 —and see the “Circle T” Magnetic Switch in operation

See it break stalled rotor current.

Notice the simultaneous double break contacts which reduce arcing to about 1/20 of that produced by the single break type.

See the “Circle T” thermal overload relays release the switch when overloaded.



No. 81351—R6

Magnetic switch combined with fusible motor circuit switch—a type for every requirement.

Answer These Questions For Yourself

1. How is it Trumbull (“Circle T”) can build a heavy duty magnetic switch in such a small box and still leave ample wiring room?
2. Do Trumbull (“Circle T”) magnetic switches actually break the current with so little arcing?
3. Why are flexible connections unnecessary on magnetic switches?
4. Why is the Trumbull (“Circle T”) magnetic switch the easiest one to wire?

Do Not Fail To See The Double Break Contact Principle As Applied To Meter Switches

A line of polyphase meter service and entrance switches will be on display utilizing the double break contact principle.

Note the following features—

1. Small size—compact construction.
2. All contacts and connections mounted on the front of a single slate base.
3. High current interrupting capacity.

Sold Through The Jobber

THE TRUMBULL ELECTRIC MFG. CO.

Plainville, Conn.

NEW YORK
114 Liberty St.

BRANCH PANEL BOARD AND SWITCH BOARD FACTORY AT
LUDLOW, KENTUCKY

CHICAGO
2001 W. Pershing Rd.

BOSTON
1002 Statler Bldg.

PHILADELPHIA

SAN FRANCISCO
595 Mission St.

S. E. CORNER BROAD AND SPRING GARDEN STS.
ATLANTA



Type 52FR
30 Amp.—250 Volts



Type 52P

RUGGED RALCO RECEPTACLES

Are made for all classes of heavy duty portable Electrical Equipment. The one illustrated was designed to meet the ever increasing demand for a *dependable* convenience outlet for heavy duty portable Electric Equipment such as, Heaters, Scrubbing Machines, Vacuum Cleaners, Waffle Irons, Grills, Toasters, Stereopticons, Moving Picture Machines.—For installation in Schools, Churches, Hotels, Lodge Halls, Assembly Rooms and the home.

Strains on Electric contacts and cord terminals are entirely eliminated.

Can be mounted in any standard switch box $2\frac{3}{4}$ inches deep or over. Standard finishes. Brush Brass or Cadmium plate. Send for Bulletin 106.

Built right—Priced right.

Ralco's
for Industrial use described
in Bulletins 101-105
Send for them

Ralco Manufacturing Co.

125 N. ALBANY AVE., CHICAGO

Gang Switch

ADAPTIBOXES



Type 2500

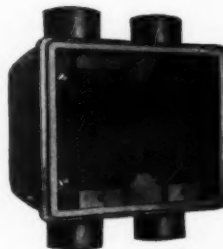
MAKE your customer as pleased with the bill as you are with the profit on the job.

No Dead Stock

The removable, interchangeable outlets and cover-plates permit your wiremen to make up **special boxes right on the job**, with a screwdriver in a few moments. No waiting for "Specials." Will gang up to 15 switches.

Easy Changes and Extensions

Makes subsequent extensions and last minute alterations an opportunity for more profit instead of a source of argument and a chance to lose money.



Type 2620

Write for Catalog No. 107-A

The ADAPTi Co.

2996 E. 72nd St., Cleveland, O.

NEW YORK CITY—A. Stone, 112 East 23rd Street
PHILADELPHIA—Craven Elec. Sales Co., 30 Bank St.
SOUTH BOSTON—The Hastings Sales Co., 42 Binford St.

Dayton Contractors Organize

At a banquet May 9 the Master Electricians Association of Dayton, O., closed their chapter with an organization of fifty-one members. The sound policies and practices as outlined in their constitution and by-laws, in addition to the early appointment of a full-time secretary-manager and the installation of the Detroit Credit Plan, pro-



M. P. Barber

vides a firm foundation on which to expand their association.

Pending the regular election, M. P. Barber is acting president; William Lyman, vice president; Roland West, secretary and R. M. Nicely, treasurer.

ELECTRICAL CONTRACTING is very generously given full credit by Mr. Barber for their realization of an association need.

* * *

Iowans Discuss Industry Cooperation

"Industry Cooperation" was the theme of the annual convention of the Electrical Contractor-Dealers Organization of Iowa, held at Marshalltown, May 20 and 21. This association for the past two years has been working with the other branches of the electrical industry in the state to build harmonious relations, and the results have been of such far reaching importance as to bring Paul Clapp, managing director of the National Electric Light Association and Laurence W. Davis, general man-



STOP THIS NIGHT WORK

Just because you are in the Electrical business is no reason why you should have to spend your evenings charging up jobs, figuring discounts and percentages and making out accounts.

All this work, important as it is to successful operation, can be done accurately and quickly during the day by your bookkeeper or clerk. You will be assured of a fair profit—your accounts will go out promptly and you will find a decided improvement in your collections if you use

The National Electrical Resale Price Service

gives you Suggested Resale Prices on all standard supplies such as sockets, receptacles, conduit, fittings, safety switches, wire, reflectors, etc., and also the prevailing retail prices on the leading appliances.

Our Suggested Resale Prices are based on up-to-date trade costs and include an allowance to cover overhead and profit and most important of all, they are kept revised by weekly change sheets so that you may depend on this information being up-to-date.

Over a thousand Contractor-Dealers are making money and saving time by using the NATIONAL ELECTRICAL RESALE PRICE SERVICE and if you are not satisfied with your profits in the past, we will gladly mail you full information but please attach your letterhead to the coupon as the Service is furnished to those engaged in the Electrical business.

Henderson-Hazel Corporation

5005 Euclid Ave. Cleveland, Ohio

— In Canada —

Henderson Business Service Ltd., Brantford

Henderson-
Hazel Corporation,
5005 Euclid Ave.,
Cleveland, Ohio

Without obligation
please send us full particulars about the NATIONAL ELECTRICAL RESALE PRICE SERVICE.

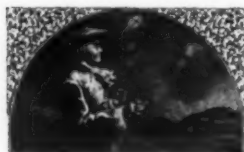
Name

Street Address

City or Town

State

E C 6-29



Holtzer-Cabot
SIGNAL SYSTEMS
ESTABLISHED 1875



Telephone Systems

Holtzer-Cabot telephone systems for banks, offices, schools, factories, clubs and hospitals have been extensively used for over forty years.

Two new bulletins, showing our full line of intercommunicating systems and telephone switch board systems have just been issued.

Full description of apparatus with complete diagrams and wiring information is given. Copies gladly sent on request.

The Holtzer-Cabot Electric Co.
Boston Chicago

—binds itself thru the cable insulation

**HIGH VOLTAGE
INSULATING
COMPOUNDS**



MINERALLAC has high dielectric strength and insulating qualities between conductors and from conductors to the ground.

MINERALLAC thoroughly binds itself through the cable insulation and will not crack or pull away in very cold weather, or flow too readily in hot weather. It displaces all moisture, air and gas, eliminates all voids without appreciable change in volume.

**Adopted by the
Largest Public
Utility Companies**

And made for all purposes. . . . Different grades for various applications. . . . Excellent for filling cable joints, potheads or similar receptacles. . . .



Will Not Crack

MINERALLAC ELECTRIC COMPANY

25 N. PEORIA ST., CHICAGO, ILL.

ager of the Association of Electricians together on the program to discuss this topic in its national aspect.

The result of the two years of industry cooperation in the state were discussed by the presidents of each of the three participating groups: Earl N. Peak, for the contractor-dealers; Tom Kelley, for the jobbers, and Clarence Macy for the utilities. Other speakers on the program were Samuel A. Chase, on "Selling the Electrical Idea to the Public" and Arthur Huntington.

The committee meeting feature of past conventions was again carried out. Each contractor attending the meeting was given an opportunity to present any complaints or suggestions he might have to the proper committee for such action as the committee might care to take or suggest.

The committees and their chairmen were: Legislative Committee, Robert Honegger of Des Moines; Trade Policy Committee, Harry Ryan of Sioux City; Finance and Ways and Means Committee, C. F. Nagle of Waterloo, and Membership Committee, James Cusack of Cedar Rapids.

A special program was provided for the ladies which covered home electrification as seen from a woman's point of view.

* * *

Detroit Revises Red Seal Specifications

In living rooms of less than 200 sq. ft. total area, the requirement for ceiling light will be waived, provided the room has sufficient wall brackets or vice versa, according to the revised Red Seal specifications recently adopted by Detroit.

The specifications also make some interesting recommendations for wiring as follows:

Push buttons at front, rear and grade doors to operate bells or buzzers from current provided by low-voltage transformer located on basement lighting circuit.

Illuminated house number placed on front of house.

Provisions for electric ventilating fan, refrigerator, range, water heater, oil-burner motor.

Weatherproof outlet (on open porches) for special holiday decorations.

Radio ground, aerial and speaker outlets.

Ten Cities Legislate Against Substandard Material

Ten cities have ordinances prohibiting the sale of unapproved electrical material and appliances, according to a survey made of 310 city ordinances by the Uniform Ordinance Department of the Society for Electrical Development.

The survey also disclosed that there are ten cities having electrical dealer license ordinances, only four of which are in the list of cities prohibiting the sale of unapproved material.

The cities requiring electrical dealer licenses are:

Glendale, Cal.—Dealer's license included in contractor's license.

Pomona, Cal.—Dealer's license included in contractor's license.

Colorado Springs, Colo.—Dealer's license required.

Miami, Fla.—Dealer's license required—apparently.

Waterloo, Ia.—Dealer's license included in contractor's license.

Asheville, N. C.—Dealer's license required for selling appliances over 660 watts.

Charlotte, N. C.—Dealer's license required for selling appliances over 660 watts.

Portland, Ore.—Electrical dealer's license.

Salem, Ore.—Electrical dealer's license.

Tacoma, Wash.—Electrical dealer's license.

The cities having ordinances prohibiting the sale of unapproved material are:

Colorado Springs, Colo.,

Jacksonville, Fla.,

Twin Falls, Idaho,

Coffeyville, Kans.,

New Orleans, La.,

Portland, Ore.,

Salem, Ore.,

Tacoma, Wash.,

Kenosha, Wis.,

West Allis, Wis.

* * *

Over 200 Red Seal Apartment Houses in Toronto

In addition to its 80 per cent Red Seal average in single homes, the Electric Service League of Toronto has achieved the distinction of getting more than 200 apartment houses, of more than 3,000 suites, wired to its Red Seal standard, which includes electric ranges and refrigerators for every housekeeping suite. In 172 of these, which have been finally counted for outlets, and given final seals, there were 7,261 rooms, and 43,572 outlets, besides special basement electric equipment such as washers, electric dryers, etc.

In 1925 and 1926, the average



Every Terra-Cotta Building Offers A Chance To Profit

from

BEL-SUN-LITE



COUNT the terra-cotta buildings you pass, and you count chances to profit. Terra-cotta responds best to floodlighting. Rents are higher because business is better in Bel-Sun-Lited buildings. All tenants share in the advertising. Show owners how floodlighting increases income and you will make sales.

Bel-Sun-Lite Floods operate at low cost because of their durability, high lumen delivery, small current consumption and ease of cleaning. You profit well from them, yet their cost is not prohibitive.

Belson Manufacturing Co.

804 Sibley St.

Chicago, Ill.

Our distributor will gladly help you figure. His name is in the classified phone book of the nearest of these cities. Call or write him or us.

Atlanta, Ga.
Delaware, O.
Ft. Worth, Tex.
Gary, Ind.
Houston, Tex.

Indianapolis, Ind.
Kansas City, Mo.
Los Angeles, Calif.
Miami, Fla.
Minneapolis, Minn.

New Orleans, La.
Omaha, Neb.
Philadelphia, Pa.
St. Louis, Mo.
San Antonio, Tex.

San Francisco, Calif.
Seattle, Wash.
Tampa, Fla.
Tulsa, Okla.

BEL-SUN-LITES For Theatres PAY



Canopy Signs



Olivettes



Chromium Reflectors



Strip Lights



Indoor Signs



Louvre Lights



Borders (Any Length)



Spots



Foots



601 N. C.

[ONE-PIECE]

CONNECTOR



New Type Groundrite
Locknuts

Has openings (not shown) to permit inspection of new type Bushing required on "ABC" Cable.

A new product that you will appreciate—it's just as easy as the old type to install—no extra pieces that might get lost.

Specify CST Fittings when ordering from your jobber, they're perfectly machined and thoroughly galvanized—and—they cost no more.

Send for free samples and Catalog of
[THE STEEL TANK LINE CONDUIT FITTINGS]
CHICAGO STEEL TANK CO.

ELECTRICAL DIVISION

6400 West 66th Street CHICAGO, ILLINOIS

Red Seal apartment house had 23 suites. In 1927 the average size was 17 suites, and in 1928 the average was 12 suites. Since the number of Red Seal apartment houses reported for the various years was: Up to end of 1926, 26; 1927, 61, and 1928, 89, the rapid progress in enlarging the scope of Red Seal work has extended into the small apartment houses, which were not obtained as Red Seal in the earlier years. About 80 per cent of all Toronto apartment house building is now in the Red Seal class. As many new apartment houses have been obtained as Red Seal in the first three months of 1929 as were obtained in the whole period from 1924 to the end of 1926.

* * * Accident Statistics from New York City

Ten electrical contractors employing 357 mechanics who worked 809,091 hours in 1928 had 21 accidents involving 607 lost days, according to a survey just completed by the Building Trades Employers' Association.

This gave the electrical contractors a frequency of 25.95, or seventh place in a list of seventeen trades. The average frequency of all was 49.67.

THE ANSONIA ELECTRICAL CO.

ANSONIA No. 663

Combination Bell and Buzzer

Enclosed within a case no larger than our No. 659 we have incorporated two single coil movements of rugged design with coin silver contacts, vibrating reed type, non-adjustable armatures and coils of ample size wound with Ansonia Enameled Magnet Wire. These movements will operate equally well on batteries or bell ringing transformers.

The bell is finished in French gray enamel only and fitted with a full buffed steel gong, copper and nickel plated.

The construction throughout is of the same high grade as all of the "ANSONIA QUALITY" line of bells.

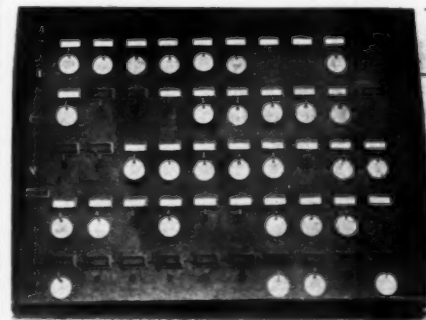


Write for 64-page catalog E which illustrates our complete line of electrical house goods.

THE ANSONIA ELECTRICAL CO.
ANSONIA, CONN.

ANNUNCIATORS — BELLS — BUZZERS — PUSH BUTTONS

ELECTRICAL HOUSE GOODS



TOOL RECORD UNDER LOCK AND KEY:—The Herman Andrae Electric Co., Milwaukee, Wis., has converted a 24 by 30-in. steel cabinet into a durable and efficient tool record, which can be locked up. Each hook represents some tool or device and is plainly marked. Each mechanic carries seven brass checks on which is stamped his number. John Jones' number is 19 and he wants a 10 ft. ladder. He "buys" it with one of his checks, which the storekeeper immediately hangs on the proper hook. Not only does this record show where all tools are at all times, but it is valuable when a sudden shortage arises. A glance tells which job can best spare one of the tools and there is no time wasted. A check with this record is made from time to time to determine whether or not the supply of different tools is sufficient.

Vosmer Heads Denver Contractors

At the annual meeting of the Denver Electrical Contractors Association the following officers were elected: President, L. A. Vosmer; vice president, C. W. Nelson; secretary-treasurer, E. C. Headrick. The board of directors consists of the above officers and C. N. Shannon and D. D. Sturgeon.

* * *

One House With 416 Outlets

Among the Red Seal homes reported in April by The Electric and Radio Association of Kansas City, Mo., is that of H. M. Katz, which has the following outlets:

Ceiling	71
Cove	95
Bracket	47
1-Way Switches	63
3-Way Switches	54
Convenience Outlets	57
Special Outlets	29

Total 416

Among the special outlets there are 4 4-way switches, 6 ventilating, 8 radio, and 6 telephone outlets.

To date, this is the largest number of outlets reported in any one home.

* * *

Tallest Building to Have Unusual Wiring

The Chrysler building now being constructed in New York City and to be the world's tallest building, will have some unusual features in its electrical installation, particularly in the distribution and feeder installation.

High tension feeders will be suspended from four different points in the building and will supply four transformer type substations located at different levels thus giving an even distribution with a minimum drop in voltage on the secondary side.

This feeder system, which was designed by Louis T. M. Ralston, New York City, consulting engineer in charge of the building construction, will be installed together with modern electrical equipment including an elaborate floorduct system, by Hatzel & Buehler, New York City. A large floodlighting installation is also planned, the details of which are not as yet com-



Contractors Are Interested In ABOLITE Units



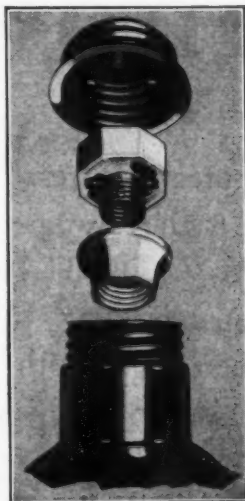
TYPE BXMK

Type BX Reflector with 4" Outlet Box Cover.



TYPE RXQM

Type RX Reflector with 4" Outlet Box Cover



Easy to Wire. Everything Accessible. Interchangeable.

Contractors have been quick to recognize the quality and superiority of ABOLITE Reflectors. ABOLITES specified on the job mean correct lighting at minimum cost. The interchangeable features of the holders and reflectors effect great savings in maintenance costs.

ABOLITES Give Proper Illumination

Definite facts and production figures have convinced many plant executives that an investment in proper illuminating equipment increased the productivity of their plant, cut down accidents and increased profits. More light where it does the most good has shown many a plant operator that ABOLITES were a paying investment. ABOLITES are made in all sizes and shapes to meet your individual needs.

ABOLITES Meet All Conditions

The adaptability both in form to fit a given lighting need, and interchangeability of holders to meet your requirements provides the user of ABOLITES with the ultimate in lighting efficiency. The numerous shapes and broad selection of holders in the ABOLITE line insures proper lighting at all times.

Easy to Wire—Easy to Clean—
Easy to Change

RELIABILITY

If you have not yet received the new ABOLITE Catalogue No. 180, write now for complete information on all lines of ABOLITE Porcelain Enameled Reflectors.

The ABOLITE Reflector Co.

2400 East 75th Street

Cleveland, Ohio

RELIABILITY

MURLIN

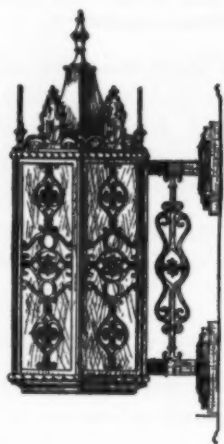
Announces



ITS TENTH ANNIVERSARY CATALOGUE

Number "5"

You Should Have It On File



Special Fixtures Made to Architects' Specifications

MURLIN MANUFACTURING CO.

5420 Paschall Avenue
Philadelphia, Pa.



pleted. Instructive descriptions of this modern electrical installation will appear in future issues of **ELECTRICAL CONTRACTING**.

* * *

Erie Contractors Organize

The Erie Association of Electrical Contractors, just recently organized, has the following officers: Herbert Garvin, president; Wm. Hurley, vice president, and R. D. Goff, secretary-treasurer.

* * *

Niagara League to Promote Better Store Lighting

The plans for the annual campaign of the Electrical League of the Niagara Frontier include better and more scientific lighting for the 7500 stores of Buffalo. Member contractors through whom the work will be placed will enjoy a large increase in business as a result of this campaign.



GOES TO EUROPE AFTER 21 YEARS IN THE BUSINESS:—After twenty-one years in the electrical contracting business, Harry N. Jacobs, Flushing, N. Y., has now gone on an extended trip to Europe. Mr. Jacobs left on May 18 and will visit Southampton and London in England; Glasgow and Edinburgh in Scotland; Bergen and Oslo in Norway; Stockholm, Upsala, Lund, Sweden; Copenhagen in Denmark; Hamburg and Frankfurt in Germany; Paris in France. He also plans trips into Switzerland and probably to Rome. Mr. Jacobs has built up a very large business on small jobbing work and reconstruction. Most of his business is on a cash basis and on jobbing work the men are instructed to collect payment when the job is finished. Left to right, Mr. and Mrs. Jacobs and the manager of the business, who is handling affairs while Mr. Jacobs is away.

Do you know

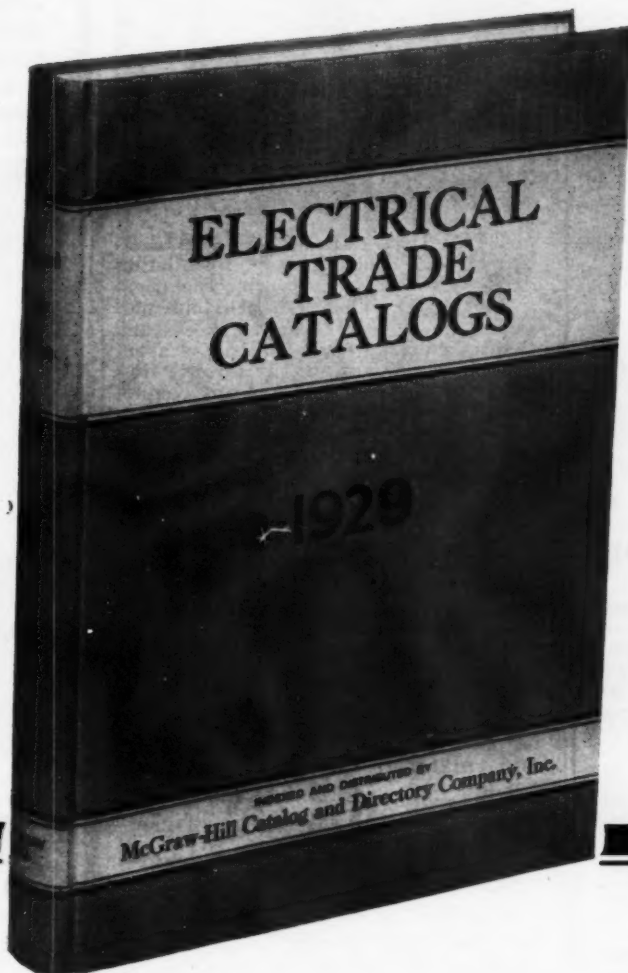


Approved
by the
Underwriter's
Laboratories

BEFORE the protective treatment is applied to the raw pipe used in making "GALVADUCT," there is an additional pickling—then a thorough scrubbing with revolving brushes. After all this every length is washed in cold water.

Garland Mfg. Co.
Pittsburgh, Penna.

The Catalog Place of the Electrical Trade

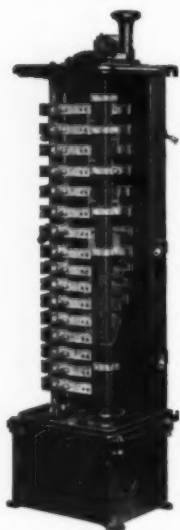


Look it up in this Binder!

The Green Book with the Orange Bands — whenever you need information on what or where to buy!

UNION

The
Most Complete Line of
Drum Controllers
in the World



Frame Construction

Unbreakable malleable iron head and bottom. Stamp steel back and sides welded to head and bottom. Light, strong, unbreakable. Ample space for wiring, inspection and replacement of parts. Removable top plate.

Covers. The front cover is of pressed steel, fitting closely all around. Splash-proof—even weather-proof. If the drums are to be mounted in outdoor positions, protectors can be supplied, preventing the formation of sleet over the operating lever. Drawer pull is attached to front cover to facilitate lifting of cover after thumb nuts are loosened.

Operating Positions. Operating levers of the rotating type are equipped with latches in the "off" position. The latch is a part of the operating handle itself. The handle is well designed to fit the hand of the operator. The latch is workable from the handle by simply pressing the handle down. This applies to the reversing drum, the non-reversing drums not having the latch. Rope wheel self-centering, or straight line lever drive can be furnished in place of rotating lever.

Bearings. The removable top plate, and the bottom, are fitted with renewable Arguto Oilless Bearings. With the Arguto Bearings, the cylinder shaft will not wear or rust, and the drum will operate freely under all conditions.

Conduit boxes are designed for mounting under bottom of drum.

UNION ELECTRIC MFG. CO.

10th and Juneau, Milwaukee, Wis.

Manufacturers of
Electric Motor Control Apparatus

Also Associated Manufacturer with,
and Eastern Distributor for
DIAMOND  ELECTRICAL MFG. CO.
Los Angeles, Cal.
Magnetic Motor Control Apparatus



MAKES DOG TRACK INSTALLATION:—An interesting installation made by the Hart Enterprise Electrical Co., New Orleans, La., at Heineman Park, the home of the New Orleans Pelicans during the baseball season. This lighting was put in for the dog races held by the New Orleans Kennel Club. Around the half-mile track are 186 Benjamin 300-watt reflectors. The grandstand is illuminated by 210 500-watt and 200 200-watt units. In the paddock and betting ring are 135 100-watt units. Over the parking grounds are 60 Parabolite reflectors of 200-watt capacity and 50 200-watt R. L. M. reflectors.

Grand Rapids May License Dealers

In order to prevent the sale of sub-standard electrical appliances and material in Grand Rapids, Mich., an ordinance has been drawn up for the licensing of electrical dealers. The proposed ordinance is to be presented to the city commission at an early date and, in the opinion of George Cotton, chief electrical inspector, its passage is only a matter of time.

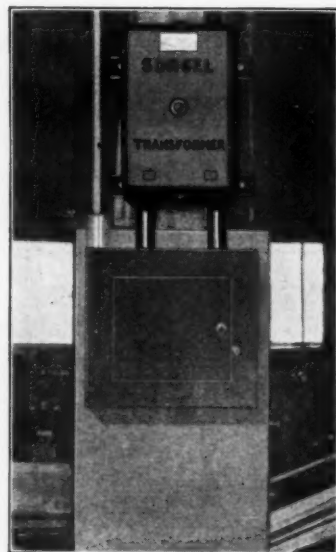
The proposed ordinance provides for an annual license fee of \$1.00 and a penalty clause of \$100.00 for the sale of any equipment that comes under the ban.

The paragraph devoted to a definition of safe materials will be found interesting to those in other places contemplating a similar ordinance:

No person, firm or corporation shall sell, offer for sale, possess with intent to sell or install any electrical materials or appliances, which are dangerous to life, health or property. Conformity of electrical materials, devices and appliances with the standards of the Underwriters' Laboratories, Inc., as approved by American Engineering Standards Committee or with other standards approved by the American Engineering Standards Committee, shall be prima facie that such electrical materials, devices or appliances comply with the requirements of this ordinance.

Easy to Install

It isn't necessary to make long runs to fire-proof vaults or to outside of buildings when installing Sorgel Transformers. Being air-cooled, they can be installed easily and economically right where the change of voltage is wanted, or any other convenient place inside of buildings.



NEW CODE SORGEL Air-Cooled Transformers

With Conduit Connections

No Extra Fittings Required

Made in Sizes $1\frac{1}{4}$ to 50 KVA.

Single-phase, 2-phase and 3-phase

110, 220, 440, 550 Volt

Transformers Designed
for Special Applications

Ask for descriptive literature

Sorgel Electric Co.

Clybourn & W. Water Sts.
Milwaukee, Wis.

Building Wiring Market in Cincinnati

Added interest in the development of the local wiring market has in the past few weeks doubled the contractor membership in the Cincinnati Electric Club. Through the club, the contractors and the Union Gas & Electric Co. are carrying on a convenience outlet campaign. The power company and the contractors jointly drew up a price list covering all



Larry E. Coen

outlet installations which are prices covering an average job that a contractor can do at a profit. They have twenty solicitors and all orders are turned over to this club to be distributed to the members.

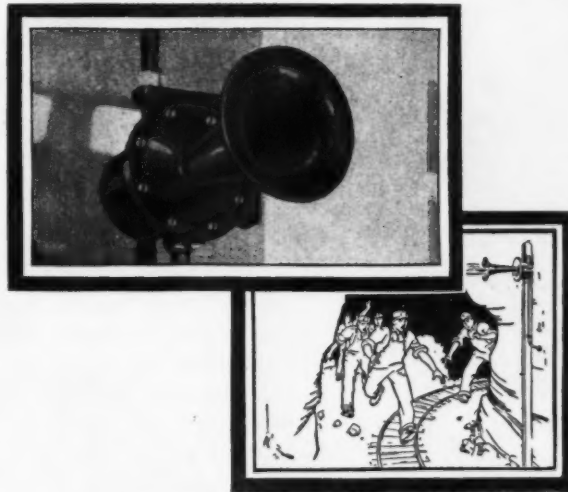
The club is also planning to hold an electric show in conjunction with Light's Golden Jubilee in the fall.

It is the purpose of the club's officers to improve industry relations and better business conditions throughout the entire industry. At the present time the Detroit Credit Plan is being carefully studied with the thought of putting it in force at an early date.

Arrangements, also, have been made to secure the services of John Kuhlemeyer in June to act as business counsellor to the contractors for a period of a month or more.

The club recently secured the services of Larry E. Coen as manager. He was for four years sales

there is a big opportunity and a good profit in wiring for Industrial Signals



BENJAMIN Motor Driven Signals

An easy job to figure; a simple job of installation—a clean-cut profit on both the signal equipment and the wiring.

That is the story of thousands of industrial signal wiring jobs—they are everywhere and they are made to order for the electrical contractor.

An industrial signal must command instant and undivided attention. It must get an instant response. The deep, distinct, penetrating note of the Benjamin Motor Driven Signal crashes through industrial noises. It always GETS the man.

On your next industrial repair or maintenance job ask them about their signaling system.

Benjamin Electric Mfg. Co.

General Offices and Factory

DES PLAINES

(Chicago Suburb)

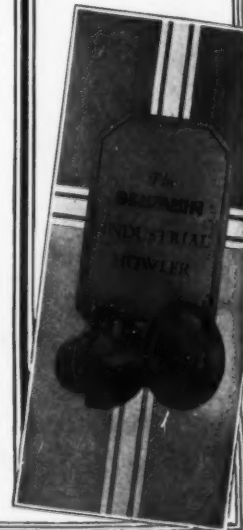
ILL.

NEW YORK

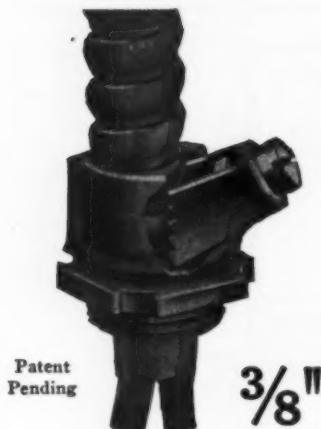
CHICAGO

SAN FRANCISCO

This illustrated descriptive folder has been mailed to thousands of selected well rated industrialists throughout the country.



TEETH HOLD the CABLE



Patent
Pending

$\frac{3}{8}$ "

New!
"T & B"
Cat. No. 300 $\frac{3}{8}$ "
"Tite-Bite"

Squeeze Connector

TABOLITE
finish SUPERIOR GALVANIZING
Approved by National Board

A Cinch for Electrical Contractors

Takes wide range of Cable
sizes:

14-2	Wire	Armored	Cable
14-3	"	"	"
12-2	"	"	"
12-3	"	"	"
10-2	"	"	"
10-3	"	"	"
$\frac{3}{8}$ "	S. S.	Flexible	Conduit
$\frac{3}{8}$ "	D. S.	"	"

WRITE FOR FREE SAMPLE

THE THOMAS & BETTS CO.

15 Park Place, New York, N. Y.

Factory, Elizabeth, N. J.

engineer with the Union Light, Heat & Power Co. of Covington, Ky. During his sojourn in Kentucky, Mr. Coen had been one of the chief motivators of the Northern Kentucky Electric Club, and it was his remarkable success in promoting this project that particularly recommended him for his present post.

This club started a few years ago with only eight members, and at the time he left, boasted seventy-five full-fledged members and a large number of associate members. They are largely electrical contractors of Covington, Newport, and surrounding localities of Northern Kentucky. The club's chief object is to further amicable relations among men in this field.

Since taking over his new work a number of notable "get-together" and "know-your-industry" meetings have been staged by the Cincinnati Club; a two-day code meeting for contractors has been held; the club has been actively represented at local industrial exhibits; several social and business projects of distinctive caliber are now afoot, and recently the club has inaugurated the issuance of a twice monthly news bulletin.

* * *

Modifies Red Seal Service Requirements

The Minneapolis Electrical League has reduced its Red Seal service requirements in order to speed up applications. The range circuit has been eliminated as a necessity. Instead of three No. 6 wires for service, the new rules require two No. 6's and one No. 8 for neutral.

Under the new rules, the service shall be sufficient to carry the full lighting load plus 6 k.w. for appliances per family.

Instead of one spare fuse block for a given number of circuits, the new rules require but one spare block per branch cabinet.

In multiple dwellings the main service equipment may be based on the following table:

2, 3 & 4 Apts.	75%	full	rated	load.
5 & 6	60%	"	"	"
7-13	50%	"	"	"
14-19	40%	"	"	"
20-30	30%	"	"	"
Over 30	25%	"	"	"

SIMPLEX

"A twist of the wrist"

FASTER!

--- and Better



Note: the Double Grip

The "Double Grip" is a patented feature of the Simplex connector and due to this exclusive design all connections made with Simplex stay put—no chance of ever being called back to the job to rectify faulty wiring which might result by the use of inferior connections—The first cost is the last cost so insist on Simplex Porcelain double grip connectors.

Send for Samples
and
Try It Yourself

... ease of application and absolute security, which insures the job will lead you to use SIMPLEX CONNECTORS exclusively in the future.

E. T. L. Tests

prove effective operation, strength and conductivity equal to soldered joints.

WEISS & BIELLER, INC.
584 BROADWAY • NEW YORK

Canadian Office—32 Front Street West
Toronto, Canada

Manufacturers' League Fund Abandoned

The electrical leagues have been notified by the chairman of the League Council of the Society for Electrical Development that the proposed plan of the National Electrical Manufacturers Association to pool their league contributions has been abandoned. The leagues for the balance of the year must look to the individual manufacturers for support as in the past.

* * *

To Discuss Fixture Distribution Costs

The rising cost of sales and distribution will be one of the important topics for discussion at the mid-summer meeting of the Artistic Lighting Equipment Association to be held at Atlantic City, June 5, 6, 7 and 8. Preceding the discussion of this topic the manufacturers selling through jobbers will have a meeting to encourage further participation in this method of distribution by other lighting equipment manufacturers.

* * *

Electragists' Convention Committee

The electrical fraternity of Boston have organized a strong Convention Committee for the annual Electragists' Convention to be held at Swampscott, on September 30 to October 4, as follows:

GENERAL CHAIRMAN
Leavitt T. Edgar, Vice President, Edison Electric Illuminating Co.

VICE CHAIRMAN
J. J. Caddigan, Honorary Member, A.E.I.
Edison Electric Illuminating Co.

FINANCE
J. E. Day, Malden Electric Co.

GOLF
Cyrus Barnes, Charles H. Tenney Co.

TRIPS
Edward Cabot, Quincy Elec. Light & Power Co.

RECEPTION
James S. Feeley, Barnes-Pope Co.

ENTERTAINMENT
J. J. Caddigan

TRANSPORTATION
Frank M. Wicks, Westinghouse Lamp Co.

LADIES
J. F. Davis, Graybar Electric Co.

DANCE
A. L. Smith, Walker & Pratt Mfg. Co.

PRIZES
Austin E. Greene, Condit Electrical Mfg. Co.

SOUVENIRS
George H. Wahn, George H. Wahn Co.

PUBLICITY
Edward H. Jay, Metropolitan Electrical League of Boston

GLAD HAND
Samuel Adams Chase, Honorary Member, A. E. I.



Levolier

REG. U.S. PAT. OFF.

6

AMP.
125 VOLT

Pull Switch



FOR THE
Individual Control
of
Lighting Units

In knockout
of outlet
box



Ideal for
Canopies



Also fits
in shallow
ceiling pans



For office,
store and
kitchen units



The Lever is operated straight up and down or sideways at any angle, making it the smoothest working, most flexible in installation and of the greatest adaptability of any pull switch made.

This universal toggle movement with its small size, rugged construction and great durability make it especially suitable for the control of all small motor-driven appliances.

Your Jobber Can
Supply You



Will take the initial 45-ampere surge
of switching a cold 500-watt
gas-filled lamp.



Levolier
Pull Switches
Pull Hooks
Conduit Box,
Fixture, Lever, Pull
and In-Servant
Switches
Hickays

MCGILL

MANUFACTURING CO.

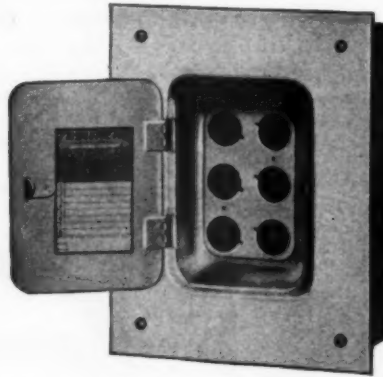
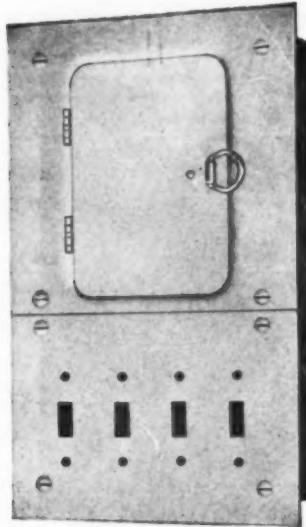
Electrical Specialties of Quality

ESTABLISHED 1904

VALPARAISO • INDIANA



Levolier
Lamp Guards
Lamp Colorings and
Fronting
Soldering Flux
Blow Torches
Lamp Cleaners



**Only two of a Large Family
of BIG MONEY MAKERS—**

**Ask for the Family Album
SENT FREE**

ELECTRIC APPARATUS CO.
702-706 N. Halsted St. Chicago

Full line
of fuse
panels
and cabi-
nets for
any in-
stallation.



Industrial
and the-
at or
switch-
boards.
Stage foot
and bor-
der lights.

**Save time and labor Use MISENER
on wiring jobs products**

Misener Rotary Hack Saw

Cuts clean round holes in terminal and junction boxes, slate and marble panels, and automatic starters for entering conduit.

Type B No. 2 Tool embodies 9 pipe sizes $\frac{1}{4}$ " to 4". Complete with $\frac{1}{2}$ " depth of Blades.....\$13.50

Type B No. 4 Tool embodies 6 pipe sizes $\frac{1}{4}$ " to 2". Complete with $\frac{1}{2}$ " depth of Blades.....\$ 7.00



Misener Safety Conduit Seals

These little discs of heavily waxed fibrous stock keep the exposed conduit airtight and water, dirt and cement proof.

They are slipped into the conduit bushing while the building is under construction and easily destroyed with a screw driver or knife when ready to fish the wire—not necessary to remove the bushing.

SEALS are inexpensive—plugged up conduits are costly.

Size Inches	St'd Pkg.	Price per 100
$\frac{1}{4}$	500	.20
$\frac{3}{8}$	250	.25
1	250	.25
1 $\frac{1}{4}$	150	.30
1 $\frac{1}{2}$	150	.35
2	150	.50
2 $\frac{1}{4}$	100	.70
3	100	.90

Tools, Blades and
Seals Patented

Misener & Irving Mfg. Co., Inc.

Syracuse, N. Y., U. S. A.

How to Charge for Small Jobs

(Continued from page 21)

fair reason for your charges for "the knowing how and where to locate the trouble," for your promptness in rendering services and the quality of material used. Use material that will not be necessary to replace too soon, making the cost twice as much in an unreasonably short time. Build a reputation for good work.

Our charge is \$1.50 per hour, minimum charge \$1.50, five or fifteen minutes. Soon as the public learns your price, they pay and respect you. Sometimes you are forced to be discreet. Of course, your charge per hour depends upon the rate per day.

John Wilhelm,

Brooklyn, N. Y.

* * *

Better to Have High Than Low Minimum

Most people complain about paying for the services of a man to do a small job whether they are charged a minimum amount for the time, or by the hour. It invariably requires considerable explanation to make them understand that they are paying for the man's time from the time he leaves the shop until he gets back to the shop. It is to their interest to give explicit information when they ask for a man to come out to do a piece of work, thus saving an extra trip. For that reason our office force is instructed to obtain this information by various questions, yet some of the people get angry when asked.

We make it a practice to send a minimum bill for \$2.00, car fare and cost of material extra. Our men have instructions that if it appears we will have difficulty in collecting from the customer, they are to call up the office and get instructions. We invariably tell them to do the best they can in getting the money right then and there on the job, so that we will not have to send out a bill and have an argument. Sometimes we come out with what the labor, material and car fare cost us. This, of course, does not happen often, because we try to know who our customers are before we send a man out.

Once in a while we get a customer who is unable to make the lights burn in one of the rooms, and find, when we get up there, that the lights have been turned off at the socket instead of at the switch. So, of course, they do not think they should be charged \$2.00 for that, but unless we can get a fair price for our services, we would rather leave the business to somebody else. And even if we were to reduce this charge from \$2.00 to \$1.00, we believe we would have the same complaint.

We believe that your subscriber has made an error in reducing his minimum charge from \$1.50 to \$1.00. Were he to raise it to \$2.00, he would probably be better off, because then he would have something to even up with on those jobs that he loses money on.

S. J. Stewart,

*S. J. Stewart Electric Co.,
New Orleans, La.*

* * *

Cleveland Inspectors Organize

The Electrical League of Cleveland has organized the Inspectors Association of Greater Cleveland, which is to work independently, but cooperate with the League. The new organization was formed for the purpose of formulating uniform code regulations governing the installation of electrical wiring, appliances and fittings in the Cleveland territory.

L. F. Aubrecht is chairman; Geo. Turgeon, secretary-treasurer, and M. G. Buchan, executive secretary.

* * *

To Discuss License Legislation

License legislation will be one of the most important topics to be discussed at the thirtieth annual convention of the New York State Association of Electrical Contractors and Dealers, to be held at Glens Falls on June 10 and 11.

It is the desire of the officers of the association to learn from those attending the convention whether or not they want such legislation, and if so, whether it be city or state and, also, if this is a good time to try to secure such legislation.

The J. C. PENNEY CO. WAREHOUSE St. Louis, Mo.

Architects

T. P. Barnett, St. Louis

Engineers

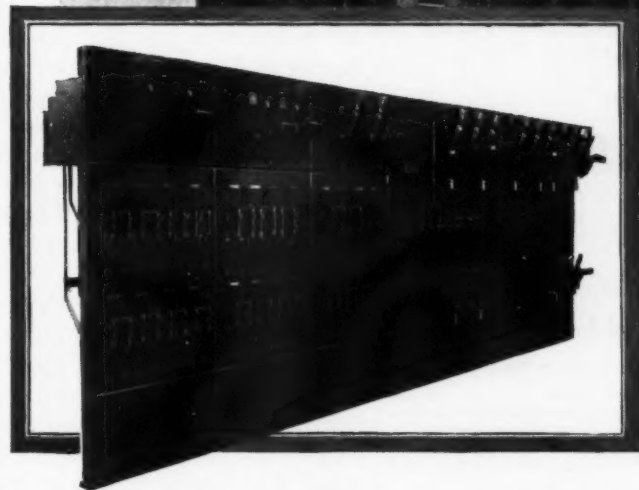
John F. Miller, New York
Consulting Engineer

Taxis & Becker, St. Louis
Structural Engineer

Clyde R. Poce, New York
Mechanical Engineer

Electrical Contractors

Dennison-Loepker
Electric Company



WURDACK SWITCHBOARDS

are especially designed to meet the requirements of each individual job. They are constructed, erected, completely assembled and electrically and mechanically tested in our plant before shipment. They are shipped in sections, each part being clearly marked, which permits the board to be re-erected and installed with the minimum of time and labor. No cutting or fitting of parts on the job.

Our engineering staff will be glad to co-operate with you in solving your live front switchboard problems. Our widespread experience in constructing hundreds of switchboards, such as the one for the J. C. Penney Company, illustrated above, is at your disposal. Write for details.

WM WURDACK
ELECTRIC MFG. CO.

4444 CLAYTON AVE., ST. LOUIS, MO.

A BIG MONEY SAVER

Eliminates triple handling—unwinding—measuring and rewinding wire, thus saving time and money.

Manually operated—reels wire into neat coil, automatically counting and registering number of feet.

Strongly built of heavy selected materials so as to last a lifetime.

It Pays for Itself

Send for bulletin.
Write us or your jobber.



**Minneapolis Electric
and Construction Co.**

80 S. 12th St.
Minneapolis Minn.

Twenty-Six Million (and more) PAINE Spring Wing Toggle Bolts Now In Use— They must be good!

Merit alone put Paine Spring Toggles highest in the opinion of the electrical contractors of half the world. If they can save time, money and trouble while giving their customers a better job, you can do the same. Get a Paine Toggle Bolt and see for yourself. Mail the coupon.

Stocked by jobbers everywhere.



**The
PAINE
Company**

2947
Carroll Ave.
Chicago, Ill.
79
Barclay St.
New York, N.Y.

Coupon Brings Sample

The Paine Co., 2947 Carroll Ave., Chicago, Ill.
Please send me a sample Paine Spring Wing Toggle Bolt.

Name.....

Address.....

City.....State.....

Let the Jobber Be Your Warehouse

By **ANDREW H. BLASS, C.P.A.**

Partner, Blass, Wood & Co., Accountants
and Auditors, Official Accountants and
Auditors, Electrical Contractors Association
of Pittsburgh

THE average electrical contractor has paid little or no attention to elimination of waste. With his usual thoroughness, he has proceeded to carry-on, and carrying on he is, in the same manner as he did five and ten years ago.

Among the many activities in waste elimination, the work in connection with reduction of inventories is one of the most important. It is axiomatic to say that the smaller the inventory investment, in proportion to the volume of business done, the greater the resultant profit. And, this applies just as much to the electrical contractor as it does to the chain-grocery store, whose success has been built partly at least by this matter of rapid inventory turn-over.

Reduce Inventories

The modern electrical contractor not only should reduce his investment in inventories, but, in the majority of cases, should entirely eliminate this item from his statement of condition. The results will be well worth-while—including as direct benefits (1) lower rentals (for store-room will be reduced in size, if not entirely eliminated); (2) lower handling cost (for material will be ordered for delivery direct to the job and thus eliminate receiving, storing and issuing costs), and as indirect benefits or by-products (1) the elimination of carrying of obsolete material or "white elephants," and (2) the elimination of losses which are bound to arise from overbuying and carrying unproductive inventories. A further by-product of such a plan, if followed, would be the necessity for greater care in both estimating and ordering exact requirements only.

Just how can all this be done? First of all, to make the change-over, if inventory of any sort is on hand dispose of it, by sale, return for credit, or scrapping, if that's necessary. Thereafter, for each job figure a "bill of material"—a list of what's needed—and place order

"DETROIT" RUBBER COVERED WIRES

(Reg. U. S. Pat. Office.)

**RUBBER INSULATED
WIRES AND CABLES**

LAMP CORDS

AUTOMOBILE WIRES

PARKWAY CABLES

**LEAD ENCASED
RUBBER INSULATED
WIRES AND CABLES**

**UNIDUCT ARMORED
WIRES**

**FLEXIBLE METALLIC
CONDUIT**

**Detroit Insulated Wire Company
Detroit, Mich.**

Division of General Cable Corporation

Now--the BOWLUS BORING MACHINE

—improved by

—backed by

IDEAL

**Adds Useful Hours
to the Day's Work**

Boosts profits—takes the real grief out of wiring and re-wiring jobs.

The Bowlus reaches up way over a man's head or stoops down below the floor level and bores holes at right angles to rafters, joists, or studs five times faster than possible with brace, breast drill or chisel.

On overhead work, it can be adjusted instantly to any height from 7' to 11'. A light hand-over-hand pull on sprocket chain sends bit through wood at an astonishing speed. Reversing movement of chain brings bit out clean—no bending or breaking.

On floor work the Bowlus is just as fast and easy to use.

And for quicker made, better wire connections, use Ideal Solderless, Tapeless Connectors.



Ideal Commutator Dresser Co.
1041 Park Ave., Sycamore, Ill.

620

Please send me:

☐ Full information on the Bowlus Boring machine.

☐ One Trial Carton of 100 "Standard" Universal Connectors at \$3.35.

☐ Free Sample of "Standard" Universal Connector.

Name.....

Address.....

City.....State.....

Jobber.....

with jobber for exact requirements. The jobber will generally make delivery direct to the job just as readily as to the storeroom of the contractor. The few odds and ends that may be left over when the job is done may be returned to the jobber for credit.

Of course there will have to be exceptions to the foregoing. If many small service and repair jobs are handled, a limited quantity of standard material may have to be carried in stock. Likewise, if the jobber is some distance from the contractor or the job. But, even then, the stock should be kept at the minimum at all times.

One of the old-time electric washer advertisements read: "Don't kill your wife, let our Blank washer do the dirty work." We can aptly paraphrase this to fit the instant case, by saying, to the electrical contractor: "Don't waste money carrying an inventory, let the jobber perform his proper function in the scheme of things electrical."

* * *

When the Owner Is Liable for Damages

In *Steinberg vs. Bogatin*, 144 Atl. 448, it was disclosed that a man named Steinberg was in the employ of a firm of electricians, who had a subcontract to install an electric heater. Steinberg was assigned by his employers to do the necessary electrical work, and, while upon the premises for that purpose, fell into an opening in the floor of a passageway.

The injured workman sued the owner of the building to recover damages for the injuries sustained. The owner attempted to avoid liability upon the contention that the workman was negligent in failing to walk carefully through the passageway.

However, the Court held the workman entitled to recover damages, saying:

"Negligence in such circumstances becomes a relative term, incapable of exact determination, except upon consideration not only of the facts, but of all the circumstances, and in view of the entire environment in which the workman is placed."

Leo T. Parker

STEEL CITY *the best* Built For The Job CONDUIT FITTINGS

The increasing popularity of STEEL CITY fittings together with that extra attention and cooperation we give our customers has made two additions to our factory necessary in the last three years.

... A complete and improved line of superior conduit fittings that meet the exact requirements of electrical contractors is instantly available always from warehouse stocks located in all principal cities. Write for our latest Catalog.

Steel City Electric Co.

1207 Columbus Ave.,
Pittsburgh, Pa.

NEW Spring Type
SNAP IN

$\frac{3}{8}$ " Box Connector
held securely in knock-
out by steel spring
tension. Makes wiring
easy—Can't fall out
and assures a perfect
ground.



STEEL CITY FITTINGS





Send 50 ¢ for a Sample of this New Non-Skid Quartap

It's a Wow — A Big Seller

With the multitude of electrical household devices now used, this beautiful four-way tap is not only a necessity, but one of the most popular items we have ever placed on the market.

Made of richly mottled red and black bakelite.

It sells at a price which builds up big sales and profits.

Send 50c for "Special Introductory Sample." One only to a customer at this price.

**The Connecticut Electric
Manufacturing Co.**
Bridgeport, Conn.

SEND 50 ¢ FOR A SAMPLE

*Packed
in Individual
Tan and Brown
Containers*

Fretz-Moon

FRETZ-MOON TUBE CO., Butler, Pa.

Conduit ceases to be
"just conduit" when it
bears the name of
FRETZ-MOON!

RIGID CONDUIT



A ROLL O' TAPE

*Electrical flash-
es gathered
among the Big
Wire-and-Pipe
Men by*

Coit A. (Duke) Smith

Field Editor, ELECTRICAL CONTRACTING

A DROPPED collar button will always roll to the farthest corner of the room, under the bed; bread always hits the floor butter side down, and a cat always lands on its feet. Likewise we have always depended on the curbstoner to be low in his bid. Yet the other day in Milwaukee I ran across a case where a regular contractor bid \$18.00 on a small change in a residence, while the neighborhood tape-and-pliers artist asked \$32.00. Can't we depend on a curbstoner in at least one thing?

A CONTRACTOR was driving me along a country road, showing me various jobs he had wired, and when he came to a great, big country home, perched on top of a hill, he started laughing so hard I thought he would have a stroke. But it was a sad kind of laugh, so I asked him "how come." "Say, I sure lost my eye teeth on that job," says he, "The owner's wife is insane and didn't know what it was all about, so when my boys arrived with all their stuff, she made life a burden to them. She would lock herself in a room where they wanted to work, and never stopped trying to get them out of the house. As a matter of fact they did leave several times and I had a fine time getting them back. Once she chased four of them with a knife. We were on the job six weeks instead of the necessary two. Never again for me!"

I NOTICE Charlie Krech's men in Milwaukee have a nifty way of stopping up the ends of conduit so it can't get jammed full of concrete. They use a knockout from an outlet box and a bushing—put the knockout on the end of the pipe and screw the bushing over it. We used to use a wooden plug, but this way is a lot neater.

I NEARLY fainted when I saw several men working on a new building in Derby hats. I didn't see any red ties or silk handkerchiefs so I gave 'em the benefit of the doubt and asked what was the idea. "Well," says one of the bunch, "A lot of guys on this job have got the dropsy—it's 'Look out below!' every now and then. So we stuffs these Iron Kellys with newspaper and in case they should drop a 4 by 4 or a plumber's furnace on your dome, the helmet will save your life anyhow." Then he gave me a demon-

stration by socking another man with a board. His eyes went kind of crooked and his knees sagged a little, but he didn't "faw down" so I guess the scheme is O.K.

BILL HETZEL, Racine, Wis., makes a business of selling his customers on letting him wire their places heavy enough to take care of changes and increased loads in the future. He says this goes double for factory work, as there is hardly a shop that doesn't increase the load every few months or so, and what's more he claims he doesn't have any trouble persuading the factory men to put in the heavier service.

ACCORDING to A. J. (Andy) Dunbar, of St. Louis, it is a wise contractor who knows his own ladders. He says when the painters leave the job they will look at a ladder and if it has paint on it, it must be theirs, and the same goes for the plasterers, etc. Then he showed me an old warhorse of a ladder that had been A. W. O. L. so long his men had scratched it off the books. He had recognized it by some private mark after it had been gone 15 months—just ran across it on a job, all splattered from end to end with everything imaginable. Seems to me it would be a good idea to brand all electrical contractors' ladders with "A. E. I." or "KVA" or "EMF" or something like that.

IF there is ever a gold medal awarded in this business for quick thinking, I know where it should go. A contractor and his superintendent arrived at a fine residence to see the fixture installation started. They found the owner turning up his nose at the finish on the different units, saying it was too fuzzy looking. The contractor took one look at the fixtures and turned to his partner with upraised hands and a look of horror on his face. "For Heaven's sake, Tom!" he gasped, "Who made this mistake? This is that new imported Velvet Brass finish—costs extra. Get these back to the shop right away." When the owner heard that a team of horses couldn't have dragged those fixtures out of his house.

BECAUSE he was bright and hustling and showed ability to work quickly with small tools, a new helper was put to work installing a six-station intercommunicating telephone system in a wholesale house. There was nothing complicated about the job and the boy finished it in record time. But the boss happened to be on hand for the testing and then the fun began. When the shipping-room was called the president answered; a buzz for the city counter brought a reply from the bookkeeping department, and so on all the way through. The poor kid was completely stumped and almost on the verge of tears. The whole thing was explained satisfactorily when he opened the box and tried to show how he made his connections. Just a little matter of color-blindness, that's all; to him red, blue, yellow, etc., were all something else again. He is now permanently assigned to galvanized pipe.

The Revolutionary GUTH-FAN Principle will revolutionize fan selling



Guth-Fan and Fixture No. R3205—4 Light.

U. S. Pat. 1699201
Other U. S. & For.
Pats. Pending.

The GUTH-FAN Patented Principle

- 1 It draws cool air *up* from below, moving it past you as a gentle current of air.
- 2 It moves air *out* at an oblique angle, in all directions, without blasts of wind.
- 3 It diffuses air *all around* the room, creating a circulating movement of *up* and *out* and *around*.

GUTH-FAN discards the old way of blowing air—and through a revolutionary patented principle creates an air action of *up* and *out* and *around*, revitalizing the air in the whole room without blasts of wind, yet it moves 50% more air per watt than a 16 inch standard fan.

It can be attached to any ceiling outlet as a fan only or it can be had with many modern and artistic lighting fixture designs. It is ideal for homes, hotels, hospitals, offices and other commercial places.

This revolutionary principle will revolutionize fan selling, creating an opportunity for year 'round sales. Wide awake electrical dealers are being offered a proposition that carries with it a more liberal discount than ever before offered on a fan.

Wire or write for details of this proposition—if your territory is open we will arrange a demonstration for you.

The EDWIN F. GUTH COMPANY 2614 Washington Ave., St. Louis, Mo.

New York City—Phone Wisconsin 2094
Philadelphia, Pa.—Phone Greenwood 1080
Columbus, Ohio—Phone University 3432
San Francisco, Sutter 5020 or Hemlock 7630

Detroit, Mich.—Phone Garfield 7047-M
Atlanta, Georgia—Phone Hemlock 7664
St. Paul Minn.—Phone Emerson 5914
Los Angeles, Mutual 2702 or Albany 2302

PITTSBURGH STANDARD

GALVANIZED CONDUIT

Easy Fishing, too!

FOUR 1-minute dips of a copper sulphate test (double the Underwriters' requirements) prove the zinc coating on Pittsburgh Standard Galvanized Conduit.

No fancy coating needed on top of the heavy Zinc on this time-tested, dependable Conduit.

Inside coating, our own Special Laboratory-made Black Enamel—baked on. The easiest fishing, the speediest fishing.

On your next installation of Galvanized Conduit, try Pittsburgh Standard. It brings real satisfaction.

P.S.

Pittsburgh Standard Enamelled Conduit "reaches the job ready to install." It's Thread Protected. Our own Special Enamel, baked; easy fishing.

**ENAMELED METALS CO.
PITTSBURGH PA.**

Beating Competition with Brains

Competition is tough in the electrical contracting business these days; and every day it gets worse. Successful contractors have found they can beat fly-by-night competition best by using their brains, and by educating their responsible employees. You can help your head men to keep abreast of the times and save you money by sending each his own copy of ELECTRICAL CONTRACTING.

What Is There Left for the Contractor?

Another specification "gem" was submitted to Chicago contractors recently for bids. Almost everything was to be furnished "by others" except the wire and pipe, but it was up to the contractor to accept the responsibility of the installation, the natural result, apparently, of the policy of certain manufacturers of not protecting the contractor.

The specifications were prepared by an engineer, yet the contractor was charged with the responsibility of picking any ordinance flaws before making his bid. Some of the paragraphs follow. They make very interesting reading.

General

This contractor shall consult the heating, plumbing and laundry machinery contractors for detail information regarding location, necessary electrical equipment and connections.

The contractor shall at all times cover and protect the work and the material to be used herein from damage by weather or otherwise and shall repair and make good at his own expense any damage thus occurring.

Ordinances

Should the contractor in estimating this work find any part or parts conflicting with the laws, ordinances or rules, he shall notify The Company in writing at the time of submitting his bid, stating the parts which are contrary to such laws, ordinances or rules.

His bid shall be based on complying with these rules and after entering into the contract, this contractor shall be held to complete all work, either on plans or described herein, according to these requirements, without additional expense to the owner.

Generator

The generator shall be designed to deliver 250 K.V.A. at 225 volts, 3 phase, 60 cycle. The exciter shall deliver 10 K.W. at 125 volts. The generator will be set by others. The exciter shall be set by this contractor and foundation built by others. The generator and exciter with their control equipment shall be connected complete ready for operation by this contractor.

Switchboards

There shall be three (3) switchboards required for this installation. They shall be located in the engine room, the test laboratory and the control room. A detail drawing will be furnished to the electrical contractor showing exact location of switchboards, the pits in rear of boards and all auxiliary equipment. These switchboards will be furnished and delivered to the site by others and assembled and erected complete ready for operation by this contractor. Contractor shall make all connections to bus work and all other connections required to put switchboards in satisfactory operating condition.

The switchboard pit with angles and framework will be furnished and installed by others. The pit covers shall

be furnished and installed by the electrical contractor.

Transformer Bank

The concrete transformer platform and cyclone fence will be furnished and installed by others.

The transformers will be furnished and delivered to the site by others.

Contractor shall receive transformers at site and install complete ready for operation according to detail drawing.

Transformer Bank

Contractor shall make arrangements to install ground plate and bus before transformer slab is poured. The oil for transformers will be delivered to the site in separate containers by others. Contractor shall receive same and properly fill each transformer with oil.

Well Pump

The well pump and motor shall be set by others approximately 50 ft. from south building line. The motors shall be 50 H.P., 3 phase, 220 volt of the slip ring type arranged for remote control from the engine room. The control panel shall form a part of and be delivered with the switchboards. The conduits in the well pump house shall terminate in type "A" unilets with porcelain covers.

Motor Generator Set

The motor generator set will be furnished and installed by others. The motor shall be 220 volt, three phase, across-the-line type and approximately 25 H.P. The generator shall be 15 K.W. 220 volt. The motor control equipment shall form a part of and be delivered with the engine room switchboard.

Contractor shall connect complete ready for operation A.C. motor, D.C. generator and all control equipment.

Test Laboratory Equipment

Ten (10) 60-Amp. 3-pole fused switches with test jacks similar to Industrial Controller switch No. 2421-H 2 shall be furnished and delivered to the site by others and wired and installed by this contractor. These switches with conduit shall be mounted exposed on wall approximately 3 ft. 6 in. above floor where shown on drawing.

Laundry Machines

All laundry machines and equipment will be delivered and installed by others. All necessary motors, controls and switches will be delivered mounted on machines and wired complete. This contractor shall run feeders and control wires as shown on drawings to machine and connect to proper terminals. Contractor shall check wiring on machine, correct any loose connections and test such machine with control equipment to insure proper operation.

A detail drawing showing exact location of all sleeves for motor outlets will be furnished contractor on job.

Feeders

Pull box, if required, will be furnished and installed by others.

Switches and Receptacles

All belted motors will be set by this contractor; the remaining motors will be set by others. This contractor shall install feeders for motors of capacity as shown on diagram and shall connect all motors complete ready for operating. Use "Greenfield" where impractical to use conduit.

Fixtures

All ceiling outlets, except those in



It's FAN time!

For baseball, for driving, for swimming—and for electric fans.

The Ohio Carbon Brush Kit is a great help at fan time! Every brush contained in a separate numbered compartment—so that you have only to glance at the chart, open your kit and take the brush you need—certain that it is the right size, the right type; that it will fit accurately and wear well.

The No. 2 Ohio Carbon Brush Kit contains 150 brushes and 60 springs (210 pieces in all) and services 75 fan jobs, as well as other small h.p. motor jobs. Price \$5.00.

For convenience, quality, and actual profit—figure on a basis of selling cost for brushes and springs plus service charge for labor—the Ohio kit No. 2 is a handy kit for your shop.

OHIO CARBON

Brush Kit No. 2

\$5.00

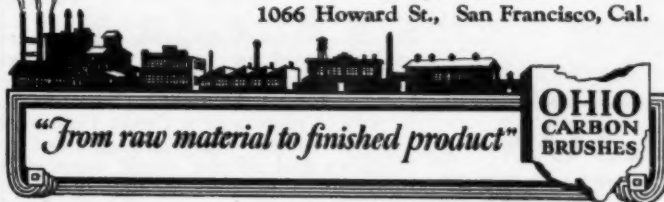
THE OHIO CARBON COMPANY

8215 Almira Ave.

Cleveland, Ohio

West of the Rockies

1066 Howard St., San Francisco, Cal.



WIREMOLD



SAY, FELLOWS!

Do you get "The Wiremold Business Builder?" You ought to—it's free—and every electrical contractor will find it interesting and instructive. Contains news items, business building ideas. VALUABLE BLUEPRINT IN EACH ISSUE.

Send in your name now for mailing list. Also get latest Wiremold Catalog and literature. KEEP UP WITH THE WIREMOLD LINE—CONSTANT IMPROVEMENT, BUT NO RADICAL CHANGE.

The
Wiremold Co.
Hartford, Conn.



QUALITY



AT LOW PRICE

Improved manufacturing methods have cut production costs in half . . . You can double your profit and give your customers satisfaction. ARMCO steel covered with porcelain fire enamel full thickness. Two-piece easy-to-wire porcelain weatherproof socket. A complete line and GUARANTEED standard quality.

Clip the Coupon

See what our bulletin says about Price!!!

Jackson Electrical Co.
910 W. Van Buren St., Chicago, Ill.
I want to make more money. Send me bulletin quoting NEW LOW PRICES on standard quality reflectors.

NAME.....
ADDRESS.....
CITY.....STATE.....
E.C. 29

JACKSON REFLECTORS

administration building, to be equipped with two-piece ABolite R.L.M. reflectors type R.T. These reflectors and the administration building fixtures will be furnished to the contractor at the site and wired and installed by him.

Lamps

Lamps will be furnished by others but installed by this contractor.

* * *

Building Industry Needs Credit Regulation

After studying the existing credit conditions in the building industry, the Boston Building Congress has issued a statement calling upon the several branches of that industry to correct their credit conditions. Its conclusions, which follow, suggest a plan approximately the same as now enjoyed by the electrical industry in several cities:

- (1) Sound credit procedure is vital to the health of the Building Industry.
- (2) The existence of highly unsound credit practices throughout the industry during recent years has been clearly established by direct testimony.
- (3) These practices have resulted in an increase of irresponsible contractors, too low prices, defective work, financial loss through failures, and depreciated properties in undesirable competition with sound construction values.
- (4) The correction of these practices throughout the industry at the earliest possible moment is a matter of first importance.
- (5) The contractors and supply dealers in each branch of the industry should co-operate in an exhaustive study and analysis of existing conditions.
- (6) They should then co-operate in the establishment of a sound credit system properly adjusted to the needs of the industry and provide means for enforcing its support and maintenance, due consideration being given to arrangements for securing payment of outstanding accounts at the earliest practicable date.
- (7) Any sound credit system should involve determination of discount date and the date on which payment in full should be made, failing which further business should be on a cash basis; and the creation of a credit committee with power to give relief in special cases.
- (8) Each branch of the industry may well consider the following terms as creating proper credit conditions to which it should make its own credit system conform as closely as practicable:—
 - (a) 2% discount on the tenth day of the month following purchase.
 - (b) Payment in full on the last business day of the month following purchase, failing which further purchases to be on a cash basis, subject to relief in special cases by the Credit Committee.
 - (c) After 6 months, all accounts still unpaid to be put on an extra hazardous list, subject to relief in special cases by the Credit Committee.
 - (d) Creation of a Credit Committee, composed of representatives of the dealers and of the credit agency employed to administer the system, to consider special cases and extend relief when justified.

Trade Mark



A1 WIRE Connectors

THE BETTER KIND

A perfect joint every time plus simplicity and dependability.

A joint which is safer, stronger and better mechanically and electrically. SRK's embody everything necessary to make such joints. There is nothing more to ask for—and the job is done in a Jiffy. 1 size for combinations of No. 14, No. 16 and No. 18, solid or stranded, up to 4 No. 14 and 2 No. 18, or equivalent.

Listed by Underwriters Laboratories
Samples upon request

Patent No. 1635293; Others Pending

Manufactured by
JIFFY WIRE CONNECTOR CO.
Hackensack, New Jersey

General Sales Office
G. D. Montgomery, Jr.
522 Broadway, New York City
Phone Canal 7533

KRUSE

Switch Box Supporting Strips with or without Lath Holders

16 1/2 - 18 1/2 - 20 1/2 - 22 1/2 - 24 1/2 - 26 1/2 - In. Lengths

Used by Contractors everywhere. A leader for ten years. Stocked by all leading jobbers. Millions of sets used yearly.

WE ALSO MAKE

Kruse Bar and Old Work Hangers
Peerless Type A Old Work Hangers
Non-Metallic Sheathed Cable Straps
Fitz-M-All Outlet Box Hangers
"Ready" Service Fittings

WRITE
For Prices and Literature

Mid-West Metal Products Co.
MUNCIE, INDIANA

Liability of General for Subcontractor's Men

A general contractor entered into a contract with Johns Hopkins University for the construction of a building with the owner making direct contracts with subcontractors for the heating and ventilating, the plumbing, and electric wiring. The general contractor agreed to assume control over the subcontractors as though they were his subcontractors, except as to the payment and financial responsibility.

During the work one of the employees of the electrical contractor was injured and the question presented the Court was whether the terms of this contract shifted the liability to the general contractor.

However, in holding the general contractor not responsible, the Court in *M. A. Long vs. State*, 144 Atl. 775, said:

"The liability of the principal contractor to pay compensation to the employees of the subcontractor is confined to only those employees who were actually engaged in the execution of the whole or a portion of that one piece of work at the time of injury It is undoubtedly true that the general contractor by the clauses of the various contracts had general supervision over all other contractors to the same extent as if they were his subcontractors but these provisions do not bring about the relationship required by the statute to constitute Long (general contractor) the statutory employer of Lappielly (subcontractor)."

Leo T. Parker

* * *

BOOK REVIEW Standard Wiring

The 1929 revised edition of "Standard Wiring" for electric light and power, just out, contains, in addition to numerous explanations and illustrations covering the National Electric Code, the Red Seal Wiring Plan and the Franklin Specification, special new chapters on wiring and lighting residences, stores, show windows, factories, shops, garages, theatres and radio sets.

Pocket size \$3.00, published by H. C. Cushing, Jr., 15 W. 55th St., New York.

BENJAMIN-STARRETT

Heavy Duty Lighting Panelboards and Steel Cabinets



Safety Front Type Heavy Duty Benjamin-Starrett Panelboard

The wide variety of circuit arrangements makes it easy to select just the right panel to meet any residence, commercial, institutional or industrial wiring requirement.

Many exclusive Benjamin-Starrett features cut installation time to the minimum, assuring the contractor a sure profit on his panelboard jobs.

The unit sectional construction and individualizing of parts provide the greatest accessibility and flexibility, assuring the highest type of continuous service at a minimum of maintenance expense.



FREE—This 80-page catalog of complete listings and illustrations. Send for it today.

Benjamin Electric Mfg. Co.

General Offices and Factory

DES PLAINES, ILL. (Chicago Suburb)

New York

Chicago

San Francisco

Special Features

Easy to Install

4-inch wiring space on all four sides; adjustable trim clamps; extra large panel mounting holes; slip-off barrier easily removed; one-piece panel back.

Quick Delivery

Boxes carried in stock at local distributors and district warehouses. Unit section construction insures quick assembly of panelboard.

All Parts Removable from Front

Should replacement of parts ever become necessary, the switches and fuse receptacles are individual units which may be removed without disturbing the trim. Replacements or changes in branch circuits made without removing panel from box.

Heavy Duty Switches

Branch circuit tumbler switches on both two-fuse and one-fuse panels are heavy duty type—30 ampere, 250 volts.

Three Styles of Cabinets

Safety Front, Protective Front and Open Front to suit any specific requirement.

Manufacturers News

A department for the announcement of activities of manufacturers that are of interest to contractors, such as changes in executive personnel, branch offices, new products, etc.

Tritle in Charge Westinghouse Factory Operations

J. S. Tritle, formerly general manager of the Westinghouse Electric & Mfg. Company's merchandising department, with headquarters in Mansfield, O., has assumed the responsibility and authority for the company's manufacturing operations. This position was formerly held by H. P. Davis, vice-president, who, because of the increasing activities of the Westinghouse company in the radio field, will devote his attention to the radio operations of the company.

* * *

Tenth Anniversary of Murlin Fixtures

The Murlin Mfg. Co., Philadelphia, Pa., manufacturers of lighting fixtures, has issued a new catalog to signalize the tenth anniversary of the founding of its company.

* * *

Cleveland Warehouse for Cutler-Hammer

To provide facilities to serve its increased trade in the east central states, Cutler-Hammer, Inc., Milwaukee, Wis., announces the establishment of a warehouse at Cleveland, O. The company has leased 1600 sq. ft. of floor space for the storage of its line of standard motor control equipment and wiring devices.

* * *

Sales Plan for Framburg Dealers

H. A. Framburg & Co., Chicago, Ill., fixture manufacturers, has devised a new sales plan for its exclusive dealers. The feature of this plan is a leather case containing an attractive assortment

of 150 cards illustrating the Framburg line. The dealers are also furnished with newspaper advertisements tying in with their collections of illustrations.

When a prospect calls at the dealer's store he is taken into the Framburg exhibit room where the dealer takes out the proper cards and in this way pictures to the prospect the effect of fixtures being considered in various room settings.

As new creations are brought out the dealers are supplied with new cards.

* * *

McGraw Buys Waters-Genter and Bussmann

The McGraw Electric Co., Omaha, Nebr., announces the purchase of the Waters-Genter Co., Minneapolis, and the Bussmann Mfg. Co., St. Louis. The former is manufacturer of a line of automatically controlled commercial and household electric appliances, and the latter makes the well known line of "Buss" lamps and electrical fuses.

These recent acquisitions follow closely upon the purchase by McGraw of the Central West Public Service Co. and of Clark water heaters. The company's jobbing business has been sold to the Westinghouse interests.

* * *

Roes Now Manufacturers Representative

Herbert A. Roes, formerly western manager for the Taplet Mfg. Co., Philadelphia, Pa., is now acting as factory representative in the Kansas City territory with offices at 407 E. 13th St.

He is handling such products as Marion insulated wire, Quadrangle reflectors, Sterling reflectors, Robinson products, and Taplet fittings.

Stivers & Weber to Represent New Era

The New Era Electric Mfg. Co., Cleveland, manufacturers of outlet boxes and conduit fittings, announces the appointment of Stivers & Weber, 33 W. 60th St., New York City, as its representative in the eastern territory.

Stivers & Weber also represent such companies as the Appleton Rubber Co., the Holyoke Co., the Midwest Electric Co., and Lindstrom Co.

* * *

Garland Mfg. Co. Moves

The offices of the Garland Mfg. Co., Pittsburgh, Pa., have been moved to 3003 Grant Bldg.

* * *

Henry Sears Moves Chicago Office

Henry D. Sears, Boston, Mass., announces the removal of his Chicago office and warehouse to 118 S. Clinton St., where, with a 50 per cent increase in floor space and improved facilities, he will be able to better handle the constantly increasing demand for Weber wiring devices in the middle west district.

* * *

Wiremold to Build New Factory

The Wiremold Co. announces that it has purchased a 10 acre tract of land, including 1100 ft. of railroad siding, in Hartford, Conn., upon which a new factory will be built at once. Upon completion of the building the latter part of this year, the general offices and several of the manufacturing departments will be moved into the new quarters.

The original Wiremold home at 83 Woodbine St. will be retained until such time when additional



with
**New One-Piece
Self-Centering
Chuck**

adjustable for boring deep or shallow holes. Thumb screw holds it . . . Simple and easy to operate, making old house wiring jobs more profitable than ever . . . The new one-piece self-centering chuck



Eliminates Set Screws

formerly necessary to center the bit . . . Notch in the end of shaft permits operator to hold spindle and release chuck without the use of a wrench . . . Head may be quickly detached from standard and put on any attachment. Order today from your jobber or write us direct, giving us his name.

We also are manufacturers of the HyKon Reel for all types of wiring jobs.

The HYKON Mfg. Co.
Alliance Ohio

**Rubber Insulated Wires
and Cables**

**Insulating Tapes and Splicing
Compounds**



**Raven
Core
Wires**

**Grimshaw
Tapes**

**Competition
Tapes**

**NEW YORK
INSULATED
WIRE CO.**

**Main Office
114 Liberty Street,
New York City**

**Factory:
Wallingford, Conn.**

factory units may be built on the newly acquired land.

* * *

**Chicago Steel Tank Opens
Stock at Three Points**

The Chicago Steel Tank Co., Electrical Division, Chicago, announces the opening of warehouse stocks at New York, San Francisco and Los Angeles.

The New York stock will be located at 116 Broad St., the new offices of the Burg Electric Sales Co., the company's eastern representatives.

The company has also appointed a new representative, Callahan-Harris, Inc., 618 Harries Bldg., Dayton, O., to cover southern Ohio.

* * *

**Larger Offices for
Ideal, New York**

Increased business has necessitated the moving of the Ideal Commutator Dresser Co.'s branch in New York to larger quarters at 18 Warren St. The office will be in charge of R. W. Becker, eastern division manager, and F. J. Dreyfuss, New York district manager.

* * *

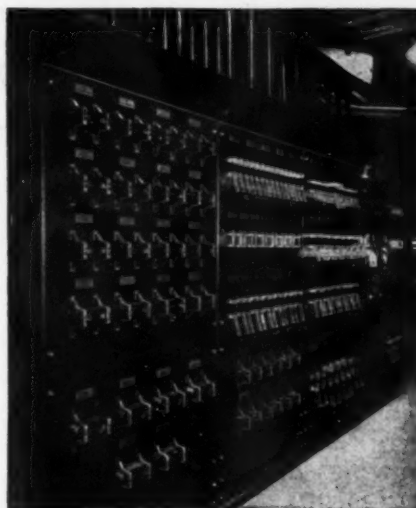
A 20-page bulletin has been compiled by the General Electric Co., Schenectady, N. Y., on "Airport Illumination." It is well illustrated and shows the various G. E. floodlighting units, explaining the use of each. Typical installations of these units in modern airports are also included. The last two pages are devoted to Mazda lamp requirements for airport illumination.

* * *

Edwards & Co., Inc., New York City, manufacturers of electric signaling devices, has just issued a 48 page bulletin entitled "Modern Hospital Signaling." This bulletin includes many illustrations, wiring diagrams and conduit layouts.

* * *

A circular has been issued by the Reflector & Illuminating Co., Chicago, Ill., entitled "A Case of Better Lighting" and covering descriptions and illustrations of the Kas-Lite Junior and also of the company's Sterling products.



**BERTHOLD
SWITCH and PANEL
BOARDS for
LIGHT and POWER**

Berthold "Selectrolite" System of Lighting
Control for theatres, auditoriums,
lodgehalls, etc.

GUS BERTHOLD ELECTRIC CO.
555 W. MONROE ST. CHICAGO, ILL.

Steel
Cabinets



Stage
Equipment

The Jiffy Line

Jiffy Tools Reduce Costs!

Save Time, Labor and Money
with these valuable labor-saving items

We guarantee your satisfaction. Order any tool illustrated on the margin, on approval. If YOU are not satisfied return the material at our expense.



Solder Dipper



Niple Chuck



Box Cutter

A Bulletin describing the complete line in detail will be mailed upon request. Fill in the coupon below or send in your order ON APPROVAL.

ESTABLISHED 1915

Paul W. Koch & Company
25 So. Wells St., Chicago

☐ Send information regarding free trial.
☐ Send the "Jiffy Line" Bulletin.

Name.....

Firm.....

Street.....

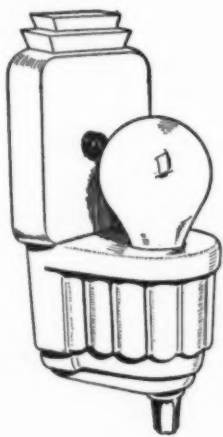
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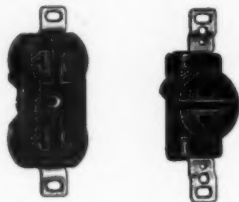
New Electrical Products



The Wheeler Reflector Co., Boston, Mass., announces the development of Duratach fixtures. This construction consists of a socket base attached to canopy by two screws which fit into bayonet holes in the base. The socket shell is attached to the Duratach socket by contact prongs which extend from the top of the socket shell and are engaged in recesses in the socket base. The shell is supported in the reflector neck by means of a metal disc which rides on a metal shoulder incorporated in the reflector. The chief feature claimed for this construction by the manufacturer is the great interchangeability and ease of installation in that the reflector lamp and socket shell screw in and out as a complete unit. The company is now incorporating this construction in its glassteel diffuser.



The Lo-Lite Durock dimming bracket is a product of the Kew Mfg. Corp., New York City. It is designed for bathroom installation and furnishes three degrees of light: full, half and low. It is obtainable in green, lavender, blue, Ross-brown, ivory, black and white. It may be had with or without the convenience outlet and measures $7\frac{1}{4}$ in. high by 4 in. wide.

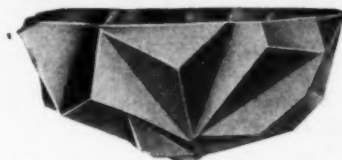


A convenience outlet with a finding ridge has been developed by the Arrow Electric Div'n of the Arrow-Hart & Hegeman Electric Co., Hartford, Conn. Nos. 8251 and 8248 single and duplex receptacles are illustrated.

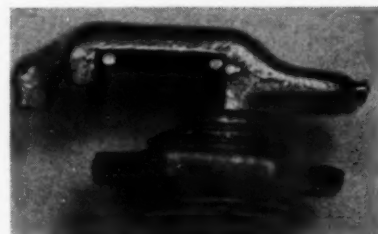


The Ralco Mfg. Co., Chicago, has developed a line of watertight receptacles and plugs. The receptacle housings are obtainable in cast iron cadmium plated and bronze while the plug housings are aluminum. This line is particularly adapted for use in places where the air is charged with steam, water spray, acid and alkali fumes.

The description in last month's issue of the new A B C connector E-Z type which is being marketed by the American Circular Loom Co., New York City, gave the number of the connector as "263." This should have been "2163."



The Consolidated Lamp & Glass Co., Coraopolis, Pa., has added to its line the Futuristic Ruba Rombic, which includes units, bowls and wall pockets. These may be had in French crystal, honey, jade, and rose.



R. B. McFeely, Chicago, is offering the Liberty All Purpose fixture stud. It is designed for use on any bar, straight or offset, and also for use as a plain fixture stud without bolts off the bar.



The Ideal Commutator Dresser Co., Sycamore, Ill., has brought out the Fixture Universal connector which is adapted for the following combinations of wire: 2, 3, 4, and 5 No. 18 stranded or equivalent combinations. It has been especially designed for fixture assembly work.

Three new products being offered by the General Electric Co., Schenectady, N. Y., are a utility outlet, a shallow-type switch and a weatherproof socket. The first is designed for rapid installation in floors, baseboards or mantles, the method of installation and reduction in size being made possible by the internal connector. The shallow-type switch is enclosed and is made for standard outlet boxes for flush mounting. The weatherproof socket is composed of a moulded textolite body to which is assembled a screw shell and center contact with leads attached. It is made weatherproof by means of a special bushing.



General Electric Supply Corp.

**EDISON MAZDA LAMPS
ELECTRICAL AND
RADIO SUPPLIES**

BALTIMORE RICHMOND
NORFOLK CHARLOTTE

Distributors for General
Electric Company, Radio
Corporation of America and
other large and reputable
manufacturers.

Concrete Inserts Save Time in Conduit Installation



Pound them in the form; the concrete holds them solid; hang the pipe below.

Send for Bulletin or Sample

Commonwealth Electric Co.
417 Broadway, St. Paul, Minn.

ESTIMATOR'S TIME SAVER



Rotometer

Every estimator's tool kit should have
1. Rotometer ..\$4.50
2. Tallying Machine ...\$4.50
for taking off quantities of material quickly and accurately. Used by leading estimators. **GUARANTEED** to satisfy you or your money back. Send \$4.50 each for Rotometer or Tally Machine, postpaid.

The Peerless Blue Print Co.
341-347 Fifth Ave.,
New York City



THE RAWLPLUG CO., INC.
66 West Broadway,
New York City

Branches in 25 Cities
Write for Bulletin B-201

Westinghouse Pittsburgh Headquarters Moved

The offices of the Westinghouse Electric & Mfg. Co., Pittsburgh, Pa., are now located in the Grant Bldg. This central district office covers the states of West Virginia, Michigan, Ohio, Indiana, Kentucky and Pennsylvania.

* * *

Allen-Bradley Opens Atlanta Office

The Allen-Bradley Co., Milwaukee, manufacturers of electric controlling apparatus, has established a district office in Atlanta, Ga., at 101 Marietta St. It will be in charge of Messrs. H. Douglas Stier and G. G. Moore.

* * *

J. W. Ward, for the past six years general superintendent of the Porcelain Insulator Corp., Lima, N. Y. and previously in the same capacity at the Westinghouse plant at Derry, Pa., resigned his position at Lima, March 1, and is now associated with the Illinois Electric Porcelain Co., Macomb, Ill.

* * *

The Crouse-Hinds Co., Syracuse, N. Y., has issued bulletins No. 2127 and 2132, the former entitled "Gasoline Service Station Lighting" and the latter "Airport and Airway Lighting Equipment."

* * *

The Macbeth-Evans Glass Co., Charleroi, Pa., is distributing a very artistic folder on its new globes. It is entitled "L'Art Moderne."

* * *

The Bryant Electric Co., Bridgeport, Conn., is distributing a new edition of its "Standard Wiring Symbols for Buildings." The revision includes the latest standard wiring symbols and copies of the chart will be mailed on request.

* * *

The Bulldog Electric Products Co., Detroit, Mich., announces its 1929 catalog devoted to "Bull Dog" electric controls, including safety switches, knife switches, light and power panelboards and cabinets, metering panelboards and cabinets, and safety switchboards.

E-Z WIRE STRIPPER

A HANDY TOOL



This inexpensive tool strips wire of 10 to 20 gauge 20 times faster than usual methods.

A MONEY BACK GUARANTEE with every E-Z Wire Stripper. Send for yours now.

\$5⁰⁰ LIST

PYRAMID PRODUCTS CO.

2313 South State Street

Chicago, Ill

Wrigley for Quality

STEEL TOGGLE BOLT



HOOD RIVETED ON

Wrigley Toggle Bolts

Made of heavier gauge steel. Can be put through smaller holes than average toggle bolt. First Toggle Bolt made.

The Thomas Wrigley Co.
609-613 West Lake St., Chicago, Ill.

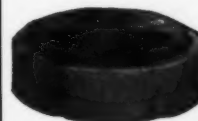
New Conduit Type Cable Support



A Simple Two Piece Cable Support for Vertical Runs.

Can furnish these in split type if wanted.

A Compact End Fitting



One that has a canvas bakelite insert made to take one to nine wires.

Bakelite Insulated Bushing



An insulated bushing made to prevent serious and disastrous grounds.

O. Z. CABLE SUPPORT CO., INC.
45 Bergen St. Brooklyn, N. Y.

Send us your latest bulletin with prices

Name
Address

SINCE 1895

Do Away With Combination Plates

Use Stock
Toggle Gang Plates
for All Combinations



Weber Toggle Switch No. 2550	Weber Bulls Eye No. 1713	Weber Convenience Outlet No. 49	No. 49 Weber Receptacle
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The above illustration is only a suggestion of the advantageous use which may be made of the new No. 49 Weber Receptacle. Send for sample.

HENRY D. SEARS
General Sales Agent
80 BOYLSTON STREET
BOSTON, MASSACHUSETTS

WEBER DEPENDABLE
WIRING DEVICES

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